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Once these substances are supplied—and you get them ow in these amazing little Ironized Yeast tablets—the improvement that comes in a short time is often astonish-ing. Thousands report wonderful new pep, gains of 10 to 25 pounds in a few weeks—complexions naturally clear—a new natural attractiveness that wins friends everywhere.

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P "About holfway across, the night was shauered by the roar of a powerful motor. Two specks of light, which rapidly grew larger, came towards me —a seaplane which had been anchored on the lake!



The hurtling monster was roaring straight for me! The pilot couldn't hear my shouts. I made a frantic grab for the flashilight beside me. Just in time the pilot cour its height flock.



The plane shot uside as it took the air, missing my canoe by what seemed like inches! I think I can truthfully say that those Eveready from DATED batteries saved my life. I'll tell the world I'll never be without them in my flashlight. It just doesn't pay to take chances.

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Vol. 2. No.2

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September, 1939

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A Mysterious Blue Flash of Light is the Baffiling Harblinger of a Doom that Ushers Men Out of the Confines of the World into the Unknown! Follow John Dark, Wizard of Science, into Realms Never Before Explored by

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BY LIVE AND STORERS, sublished bi-genship by Better Publications, Eur., N. I., Pince, Predictor, at 6000 Diversor Arts, St. URS. At the case of size a Circust, Disnos, some first of Merch, 1, 110. COURTER 120. By the Better Publication in Court of the Court of the





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THREE CLASSES OF METEORS

Editor, SCIENCE QUESTION BOX:

A meteor is a meteor, isn't it? Then what distinguishes aerolites, siderolites and siderites?—L. B., Divernon, Chicago.

Meteorites may be divided into three classes—the three you name, aerolites, siderolites and siderites. The serolites consist mainly of silicate minerals with seathered grains of nickel-iron. Small grains to reach the serolites of the contract of serolity seathered through the mass, but may not be present.

nt.
Siderolites are composed of silicate minerls and nickel-iron in more or less equal amounts and siderites are composed of metallic iron containing 5 to 15 per cent nicket, generally with small amounts of carbon, prosphorous and other elements. Of all meteorities seen to fall, but siderities are more commonly found, as they generally occur in from terrestrial rocks and are long enduring from terrestrial rocks and are long enduring.

PERPETUAL MOTION

Editor, SCIENCE QUESTION BOX:

What is the definition of perpetual motion? In the opinion of scientists, will perpetual motion ever be realized?—J. E. H., Washington, D. C.

Strictly speaking, a perpetual motion mastrictly speaking, a begretural motion mapower, and keep itself functioning permanently with Lio wun power as the sole source and the second second second second second tides and water—may not be considered as the chief motive agent, because those agenshly the only force that could be utilized. From time immemorable smatter invesshly the only force that could be utilized. From time immemorable smatter investement of the second second second their drote must be srouped with the labour the plans for a perpetual motion machine where the second second second second the plans for a perpetual motion machine where the second second second second seconding side of the hub (after it is set to recover) but when passing the top swings.

out to a horizontal position and, having weights attached to the ends, propel the wheel. Several weights on each side of the wheel is supposed to make the process continue forever—but our friend friction puts a quick

stop to that.

Most plans for perpetual motion machines look swell on paper, but are never practice look swell on paper, but are never practice to be delayed with request from hopeful inventors for patents for their inventions. The tremendous number of submissions mounted on certain that the same of the submission mounted on the same of the submission mounted on the same of t

RADIOACTIVITY AND RADIUM

Editor, SCIENCE QUESTION BOX:

With all respect to Mme. Curie, isn't it true that she didn't discover radioactivity? Can you provide me with the information as to the discovery of this phenomenon?—E. G., Edgartown, Mass.

gatown, Mass.
In 1398 the Frenchman, Henri Becquerel, discovered that something resemblings rarys erais that contain the element uranium. He found that if a photographic plate wrapped minerals, a shadow photograph of an intervaning coin or other dense object is formed. These mysterious rays can be detected by the game methods as those used for detections of the contained by the contained th

of the leaf of a charged gold-leaf electro-

Scope.

Soon after this M. and Mme. Curie, experimenting in Paris, found that thorium, while known, possessed the same property. They were, however, astonished to find that pitch-blende from a certain locality in Austria showed more radioactivity than an equal weight of either pure uranium or pure thor-

ium.
It was thus made evident that this particular pitchblende contained some other substance far more radioactive than either uranium or thorium.—Ed.

In this department the editors of STARTLING STORIES will endeavor to answer your questions on modern scientific facts. Please do not submit more than three questions in your letter. As many questions as possible will be answered here, but the editors cannot undertake any personal correspondence. Naturally, questions of keneral interest will be given the preference. Address your questions to SCIENCE QUESTION BOX, STARTLING STORIES, 22 West 48th Street, New York City.



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I am a student of the American School, Unicago.
A little more than half way through my course—
already my increased knowledge has brought me
promotion as a result of the hour or so a day I
have been spending getting acquainted with the
principles of the work I enjoy. I use only part
of my spare time, so it doesn't interfere with
my home and social life, and certainly helps me on the job.

I nave been surprised at the practical manner in which even advanced work is explained. It is a lot easier than I had expected, only wish years earlier. But when I was 18 to 20 left pretty sure of myself. I didn't take enough stock in what more experienced people told me about the importance of being thoroughly trained for the job I wanted.

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FANTASCIENCE DIGEST. 333 E. Belgrade St., Philadelphia, Pa. Edited by Robert A. Madle and Jack Agnew.

Kobert A. Madie and Jack Agnew. Scattle features at least a dozon lively articles on science fiction and allied subjects by notable pressy, chocked with news. Sam Monkowitz's short story. Grand Oil Pan, in on nrty, and while items in this sense include Mitton A. while items in this justice include Mitton A. hallar, Robert A. Madie's scientifiction quis, a sort of "information, Piesses" on past

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science fiction, and Fred W. Fischer's plaintive wall, "Phose Were the Days." Henry Kuttner, John Glunta, John A. Bristol, Mark Reinsberg and a few others round out this excellent issue.

SPACEWAYS. 303 Bryan Place, Hagerstown, Maryland. Edited by Harry Warner, Jr. and James S. Avery. Ha-

Warner, Jr. and James S. Avery.
This neutry assembled bulleti and judgineutry assembled bulleti and judgiing from the May issue, editor was in pretty
from the May issue, editor was in pretty
rish, featuring amateur fortion, fan articles,
fan mail, candid commentary, and news artinis, featuring amateur fortion, fan articles,
fan mail, candid commentary, and news artinis number. Louis Ruisian, Dale Hart and
there's some good at Dalon of the rest of the mag.

The sector of the mag.

THE FUTURIAN. 4 Grange Terrace, Leeds 7, England. Edited by J. Michael Rosenblum, H. Gottlife and E. Moss.

Rosenblum, H. Gottlie and S. Moss. B. st. reactively presented, and 26 flor Rosenblum incorporates an infilmate fan atmosphere into attention to the fact that when popular novelies and short story writers turn that hand pretty good, as witness takes by George Bruce. Bruce—and agree with Mr. Robertis! This mag worth looking into.

NEW WORLDS. 17 Burwash Road, Plumstead, London, S. E. 18, England. Ed-ited by Ted Carnell, Ken G. Chapman. As-sociates, Maurice K. Hanson, Frank Edward Arnold, Advisce C. Chapman, Associates, Maurice K. Hanson, Frank Edward Arnold, Arthur C. Clarke, William F. Tem-ple and Harold Kay.

Harold Kays artise, "The Smith Bubble,"
Harold Kays artise, e. "The Smith Bubble,"
E. Smith, ereator of the "Skytark" stories, is the feature article in May issue of this British fantasy mag. It's quite interesting. John F.
Buke's preference The Insortable British
ican readers. Cover on this okay, Mag
stacks up well with its competition.

THE FANTAST. 244 Desborough Road. Eastleigh, Hants, England. Edited by C. S. Youd.

Another British mag, with a balanced assortinent of fiction, verse, articles and essays on s-f. Some good, some fair. Osmond Robb, Garret Soffer and D. R. Smith among the contribbers.

VOICE OF THE IMAGI-NATION. Box 6475 Metropol. Sta., Los Angeles, Calif. Edited by the Los Angeles Chapter of the SCIENCE FICTION LEAGUE

Our favorite fan mag, back again with another issue! This number (April) carries more than a dozen longish letter from fantasy's big shots, all on items of interest to control the again of the state of the state of the state of get-sheaders rosume their articles satire, etc.?

FANTASY NEWS. 137-07 32nd Ave., Flushing, N. Y. Edited by James V. Taurasi. Sam Moskowitz, Mario Racic, associates.

The mag is to science fiction what Variety is to the Hullywood tribe. Issued weekly it's the tops for news presentation copies, and advance info on every phase of science fiction. We assume you're acquainted with it. If not, then wake up and live,



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Vanguard of Science

A Guest Editorial

By JACK WILLIAMSON

FAMOUS SCIENTIFICTION NOVELIST

TIME machine-just in case you happen to know any wild-eyed young inventor struggling with the problem of propulsion on the fourth axis-could not itself be patented in the United States!

Neither could the fortunate inventor of a successful rocket ship or atomic engine or invisibility-cloak obtain a basic patent on his new

Startling? But true. Because, as Frank Parker Stockbridge pointed out in a recent magazine article, if the Patent Office examiners find, even in the most fantastic flight of science fiction, a description of the essential elements contained in a pending patent application, then the application is refused.

As a case in point, the submarine periscope was "invented" by Morgan Robertson. His associates attempted to secure a patent for him, on the combination of lenses and prisms in a

rotating tube to be thrust above the sea, But their application was refused-because the principal examiner discovered that Jules Verne, in his famous Twenty Thousand Leagues Under the Sea, had already described exactly

such a right-angled rotating spy-glass! It seems clear, then, that no inventor will ever be able to patent the basic principle of travel in time—simply because H. G. Wells beat him to it!

Incidentally, the few complete collections of science fiction magazines still preserved a hundred years from now ought to be priceless, to the laboratories and patent attorneys of that day, for references in cases of patent litigation.

One lone tattered and time-yellowed copy of STARTLING STORIES, if it contained say a description of a mode of space-travel that would destroy the validity of the basic patents of the Interplanetary Transport Trust, might conceivably be worth billions of dollars. (Science fic-

tion collectors please note!) All this, however, of course contains no threat

that the scientific ingenuity of the future age will go unrewarded. What the latter-day inventors can patent, are the details and improvements that make their inventions work-just as a great many patents have been granted upon various inventions which improve Jules Verne's basic, unpatentable periscope.

A hundred science fiction writers, for example, have described a thousand details of the space flier that one day science will build. But the engineers can yet take out ten thousand patents,

upon such finer points as the precise design of the rocket-injector pumps.

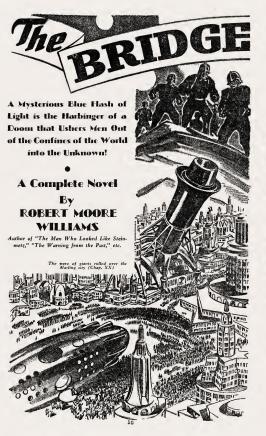
This rule of the Patent Office, it seems to me, emphasizes a very important point.

Let us imagine that our modern scientific civilization is like a military expedition moving into the unknown territory of future time. Then we can picture science fiction as a mobile vanguard that scouts ahead, to discover the rich possibilities and give warning of the obstacles that await the main body of science. Often far ahead of the battalions of researchers, science fiction skirmishes in the fields of tomorrow.

It seems quite fitting that the United States Patent Office should recognize the victories of the vanguard.



Jack Williamson





"Then our boys began releasing their magnetic torpedoes. That was our surprise. They shot them out, and after they had traveled about a mile, the juice was automatically turned on, making magnets out of them. Then they headed for the enemy fleet, being attracted by all the iron in the ships. You never did see such explosions as took place when them torpedoes began to hit-"

"No, and neither did you!" Jimmie the Goof snapped. "I wish you'd shut

did I?" Pop snorted.

up about that war!" "What do you mean-and neither

"You weren't out of Chicago, and you know it. In the second place, you were too old to be in the war. And in the third place, I've got a headache and I'm tired of listening to you. So shut up."

Pop lapsed into sullen silence. When Jimmie used that tone, he meant what he said. But it wasn't like limmie to be so snappish. Usually he didn't have a care in the world. But the last few weeks he had been having awful headaches, and they had made him miserable. Even trips to the free clinic hadn't helped.

Pop shifted on his bench and tried to sleep. A cool September breeze blew through the park. The night was dark. Overhead the bright stars twinkled. He watched the trail of light from a rocket ship. It faded away in the sky, the drumming of its exhausts died. Pop wondered where it was going, To Mars? Or Venus? Exploration had been carried to those two planets and commercial development was going on. The other planets were as yet unvisited.

Far-off in the night, an air-taxi squawked. Pop twisted on his bench, almost went to sleep. Suddenly he was wide awake, sitting up, freezing perspiration trickling from every pore.

The darkness of the night was suddenly split by a blasting flare of light. It came quickly, suddenly. It originated from a center very near to him.

At first Pop Hanson thought a cop with a flashlight had slipped up on him, turned the flash into his eyes. Instantly he realized this was no flash-

N stupefied astonishment he saw it was coming from Jimmie, Jimmie was glowing. A huge aura of bluewhite light was enfolding the Goof, bathing his body in a roaring torrent of hellish flame. He saw Jimmie try to sit up on the bench, his hands working, clawing, scratching at himself, a look of wild, unutterable torture on his face.

Jimmie rolled from the bench, flopping about like a chicken with its head cut off. The light clung to him. It seemed to puff out of him. glowed like a huge candle wick. Then, in less than an instant, he became still, He seemed to freeze. The blue-white radiation poured over him. It surged outward and Pop felt the touch of blasting heat. It flamed in one bursting final glow of violent brilliance that blinded him. Then it was gone.

And Jimmie was gone with it. Pop's eyes adjusted themselves again to the darkness. He could see the shadowy outlines of the bench; he could see the ground. But he couldn't see the hobo.

Jimmie was gone.

What had happened? The wild thought surged through Pop's mind. He didn't know. He was frantic with

rising fear. He stood up.

Trembling, frightened, he ran out of the park, sought the streets where people were. All night long he tramped the streets. When day came, a little of his courage returned and he timidly ventured back to the park. He found the benches where they had been the night before. But he didn't find Jim-The paint on the bench was cracked: the concrete sidewalk, where Jimmie had writhed, was burned brown. But Jimmie wasn't there. And no cop was loafing around, as there might have been if Jimmie's body had been found by the police.

Pop Hanson shuddered. He needed a drink, needed it badly. He went

searching for it.

That was September 7th, 2047. Although Pop didn't know it, he had just seen the first case of what was later to be called, by frightened, fearful millions, the Flaming Death.

Tom Watkins saw the second at-He was tooling a milk truck tack. into Chicago just before dawn. A low. thin mist was hugging the ground and his headlights bored holes into it. Although the streets were deserted, he was watching carefully.

But not carefully enough. A dark body loomed up ahead of him, a man staggering along. He was in the mid-

dle of the street.

Watkins frantically clawed at the horn button, stamped on the brake pedal with all his strength. The truck began to slow. But not fast enough, Two tons of milk were riding behind him in the tanks, shoving the truck onward. The brakes screamed. Watkins held his breath, and when he saw he was doomed to hit the man, he jerked at the wheel. It didn't do any good. The nose of the truck bore down on the straggler,

In that horrible instant just before the impact. Tom saw something that sent his senses staggering. He saw a puff of light flare from the body of the straggler. The man didn't seem to see the truck. He stood in the street. a look of horror on his face, and glowed. Like fire racing over gasoline, the light flamed over him. In a split second it grew to a leaping column of fire. The nose of the truck bored into it. It collapsed.

The truck went off the street, smashed through a lamp-post, crossed the sidewalk, went down an embankment, and turned over. Tom Watkins felt his head strike the steel top of the cab. That was the last thing he felt.

THEN he regained consciousness an officer was bending over him. "How you feeling, son?"

Watkins wasn't sure. There was a lump on his head that hurt like fury but otherwise he felt all right. He was a little sick. When he remembered about the man he had hit, he felt a lot "You drop off to sleep?" the police-

man inquired professionally, opening his notebook. "And run off the road?"

Watkins told him about the man in



the street. The officer looked puzzled. He moistened the pencil in his mouth and stared at Watkins,

"You in your right mind, son?"

"I-I guess so. There was a man in the street. I jerked the wheel to keep from hitting him. He began to burn all over and just as I hit him, he exploded."

"Hah!" the policeman grunted, and walked away. Tom Watkins followed him. The sun was just coming up. The dawn wind was blowing the mist away. They looked everywhere along the street.

They didn't find the man.

"I hit him!" Tom insisted. "He exploded."

"Sure," said the officer. He walked to his motorcycle, spoke into the compact radio transmitter it carried. Within a few minutes a helicopter arrowed down from the sky, its siren squawking.

"You better take this guy to the hospital," the policeman said. "He's hurt in the head."

At the hospital he stuck to his story. It got him a bed in the psychopathic ward. The psychiatrists, after interminable tests, agreed on a diagnosis.

"Definitely psychopathic. Suffering

from hallucinations.

"You're crazy!" Tom Watkins shouted at them. "I saw that man. When I hit him, he exploded in white fre."

Tom Watkins didn't know you can't tell a psychiatrist he is crazy. He found out. They had him in a padded cell in less than five minutes.

OHN DARK knew nothing of the two previous attacks of the blazing death. He knew about the third.

He saw it happen.

Harrison Taylor was making a speech, following a dinner in a downtown hotel. Taylor was one of the world's foremost authorities—if not the foremost authority—on the structure of the atom. There were twelve other men present in the small, private dining room. Once a month this small group of scientists got together to discuss various phases of the many problems that beset science.

John Dark knew them all. A few chairs ahead of him sat Emil Hard-wick, his bald head glistening as he listened to Taylor. Hardwick was a prominent mathematician. On his left was Jerome Foster, a tiny, birdlike man wind pittering eyes—a wizard at chemistry. Farther away sat Dick Small, a brilliant physicist. There were others—Richards, Malone, Dreswell. Entranced, they listened to Taylor.

"It is only within recent years," he went on, "that we have begun to realize even a small part of the tremendous possibilities bound up in the nucleus that is the heart of the

atom-"

Taylor got no further in his speech. He stood in front of his chair at the end of the room. The muscles in his throat twitched spasmodically and a dazed, bewildered expression stamped itself on his face. His hands lifted to his head. His eyes narrowed. He tried to speak, but no sound came.

Something else came. A thin blue haze seemed to puff out of his body. The bluish-white light grew in brilliance, flowered in sudden, sickening waves of luminescence over Taylor's body. Swiftly, in the flash of a second, the flame leaped to enfold the

scientist's body in a weird embrace. His body was outlined by a ghostly

aura of crackling flame.

The flame collapsed in a splintering

crash.

Harrison Taylor was gone! Where he had stood a second before there was nothing. Not even a wisp of

smoke.

There had been twelve men in the room. Now there were only eleven! John Dark leaped to his feet. Ten other men leaped to their feet with him. Emil Hardwick's hald head suddenly glistened with great beads of sweat. Jerome Foster's mouth hung open. Dick Small looked as if he had seen the devil himself. On the faces of all were expressions of shocked amazement rapidly changing into incredulous fear. They were scientists. with the exception of Dark, who made science only his hobby: but all of them, including Dark, had seen something their scientific knowledge could not explain.

A babble of voices arose. "What —" "How..." "My God!" The awed, strained tones of men who had seen something beyond the credible echoed through the room. It had happened so quickly that they had not fully realized what had happened. Their minds had not had time to grasp the significance of what their eyes had seen. When their minds did grasp what had happened, there would be oanic in that

Dark knew the panic was coming. Even scientists could be startled into a panic. He had worked too long with all classes of men not to know the symptoms. He shoved his way through them, stood well away from the spot where Taylor had been standing.

Dark felt his hair rise along the appen of his neck as he stared at that empty space. He had half expected to see the blurred fluorescence which indicated an invisibility generator was in operation. But he saw nothing.

His eyes studied the floor. The rug was singed in the spot where Taylor had stood. And lying under the chair that Taylor had leaned against was a tiny horseshoe magnet. Dark saw the magnet, wondered what it was doing there, but disregarded it as of no significance. He could not, by the wildest stretch of his imagination, connect a toy magnet with the startling disappearance of Harrison Taylor. Behind him voices babbled.

"What was it, Dark?"

"You're a detective, Dark. What happened to Mr. Taylor?"

"He—he went up in flame!" That was Jerome Foster's birdlike voice.

DARK ignored them. He turned on his heel, leaped to the window of the room, jerked saide the curtain, and looked out. The glittering night traffic of Chicago moved before his eyes. Signs flashed in the sky. But the window was shut and there was no hole in the glass. Nothing had come through the window. And yet something had come into the form of flaming death!

A screech cut the air, and Dark whiteled, his hand leaping inside his coat to the stubby weapon holstered there. He expected to see—anything. Instead he saw the mad panic of fear strike the group. The same idea seemed to occur to all of them at once. They bolted from the room. Baldheaded Emil Hardwick got his feet tangled in a chair and fell clumsily in almost the spot where Taylor had been standing. He scrambled to his feet, raced after the others.

Dark shouted to them to stop. They ignored him. Grimly, he let them go, knowing he could not stop them. Later, they would come back, grim and rather shame-faced, and hell itself would not send them into a panic the second time.

Dark did not join them. He had lived too intimately with fear and with sudden death to go into a panic no matter what the circumstances. For a second his eyes roved over the room. Then he walked to the visaphone set in a niche in the wall.

"Get me Police Headquarters," he spoke into the transmitter.

The instrument popped and hummed. Then the wavering lines of the vision screen hardened into detail and the uniformed figure of the oper-



ator at Headquarters of the Chicago area of the United Police Force swam into view.

"Captain Patton, please," Dark said

crisply.

"Sorry, Captain Patton is busy,"

"Sorry, Captain Patton is busy,"

the scrutinized the screen
revealing the face of his caller. His
eyes widened. "Say, aren't you John
Dark?" he demanded.

"Right."

"I've been trying to locate you. Captain Patton wants you down here right away."

"I've got a job on my hands right here. What's up?"

"The captain said not to talk over the phone. I'll send a squad car for you."

Dark knew Captain Patton well enough to be certain that this was no idle request. If Patton wanted him-

"Never mind. I'll grab a taxi. But first I have something to report." Swiftly, Dark explained what had happened to Taylor.

"Another one!" the operator groaned.

"What do you mean-'another one?"

"I'm not at liberty to talk over this phone. But the captain wants you down here right away."
"Coming!"

Dark snapped off the phone. He knew, in leaving this room, he was deserting a place that deserved careful investigation, but he knew, also, from the comment of the startled operator, that what had happened to Taylor had happened to other men as well! And in that case, he belonged at the center of operations, at Headquarters.

Before he left the room, he paused long enough to make a hurried but careful search. Remembering the magnet he had seen, he looked for it.

It was gone!

Dark whistled to himself in astonmemored from the room without his knowledge? Had some weird, invisible creature entered the room and removed the magnet? If so, why?

the matter. He left the room.

In the hall, he met shame-faced but grim men returning. Hardwick's bald head was still covered with sweat, and Jerome Foster's face had a greenish hue. But they were coming back. Their panic was over and they were returning. They hailed Dark.

"I've got to get to Headquarters," he explained. "I want you men to make a complete, thorough examination of that room. Overlook nothing, no matter how trivial. Arrange with the hotel for a guard to be placed in

that room."

He ignored their questions. They would do a good job, he knew. And they might discover something that would aid him in the struggle he sensed was coming.

An elevator lifted him to the roof. He grabbed an air-taxi, told the driver to burn the wind to Headquarters.

What was happening? What weird agency had been used to destroy Harison Taylor before the eyes of eleven men? How many other men had been destroyed? What grim menace was stalking through Chicago?

Dark sensed the existence of a desperate emergency, an urgency great enough to call into play all the abilities he had developed over many years, both as a private detective and as a special operative for the Secret Service Department during the last

Whatever the emergency was, John Dark was the man to meet it. His name was a household word in America and all over the world. His exploits had already become the basis of

innumerable legends.

As a youth he had

As a youth he had wanted to be a scientist. But he had been torn between two desires, for he also wanted to be a detective. The solution of crime fascinated him. In a sense, he was two men. One part of him was a cold, calculating scientist. The other part was entirely human. And this second part was intensely interested in the activities of human beings. What made men tick? Why did they do the things they did? Why did one person turn out to be an honest business man, and another, a daring desperate criminal?

The answer lay somewhere in psychology, the study of the human mind, and in seeking that answer Dark encountered another phase of science. He speedily discovered that to be a detective he had to be a scientist, and to be a scientist he had to be, in many instances, a detective. He discovered that his two desires were, in reality, one, and in order to achieve one. he

had to achieve both.

In consequence he had made an intensive study of physics, chemistry, botany, zoology, bacteriology. The list ended with astronomy. The practical application of this information had taken him through the fields of mechanics and electricity. There was no subject of which he did not possess a more than practical knowledge.

To learn all he had wanted to know had taken years of work. Dark had also made a complete research into varied fields of criminology—the art of applying make-up, disguises, how to change the shape of the face by the insertion of wax forms in the mouth, how to alter his posture. If he had chosen, he could have made a living on the stage as a quick-change artist. That one ability had saved his life many times in the past.

He had started his career as a Secret Service man while yet a youth. During the years that had followed, the criminal element of Earth had learned of a new force among them, a force that worked both within and without the law. Large-scale crime had ceased to pay and John Dark's reputation had grown.

NLY one other man had ever come near matching Dark's attainments. And that man was dead. Basil Dunning, head of the forces of espionage of the European Coalition. had been that man. Under the dictatorship of the powerful James Harkor, there had been a war in which the European Coalition had tried to conquer the Americas.

John Dark, with millions of others, had fought in that war. Not in the rocket fleets, nor the land forces, nor as a part of the far-flung naval operations, but in the far more dangerous and deadly battle between the rival forces of espionage. There had been spies in America when the war started, thousands of them. Others had been dropped from the skies as swift-flying planes slid down from the stratosphere in the darkness of the night. Spies who spoke English without the trace of an accent, men who had spent their life in preparation for their calling.

And the master of the spies who had stolen valuable industrial and military secrets from America had been Basil Dunning. The man with a thousand faces, he had been called, because of his ability to adopt almost any disguise he chose.

Opposed to him and his men had been John Dark.

The war had ended in 2042-five years in the past-in the great battle over New York. Dunning, according to the reports from the few remaining enemy ships, had been killed in that battle; and Dark's most dangerous rival had passed from the picture. Dark had known five years of comparative peace. And so had America. Five years in which to patch up the wounds of war.

Now that tranquillity was ended,



Now, out of nowhere, had come something that struck viciously in a scourge of blinding flame!

CHAPTER II Alien Voice

THE roof of Headquarters was alive with helicopter squad cars ascending and descending. As soon as his cab touched, Dark was out, flinging a bill at the driver. The elevator whisked him downward.

The corridor in front of Patton's office was jammed. Reporters were everywhere. They had already got wind that something was happening. They recognized Dark, snapped questions at him,

Dark shook the reporters loose from his coat tails, entered Patton's office. The room was filled with men. Technical experts and plainclothes detectives. They turned to look at him. Out of the crowd two behemoths surged. Lieutenant Burney and Lieutenant Farrel. They wrung his hands until he thought the bones would crack.

"Boys, I'm glad to see you."

"Not half as glad as we are to see you," Farrel answered. "Burney and me have been waiting for you. The captain says we will work together

again."

Dark couldn't think of two men with whom he would rather work. Farrel was a bulldog of a man, thick and heavy. Once he set his teeth into a problem he didn't let go until he had cracked the answer. Burney was about the same. Dark had worked with them before. He knew their caliber.

Tonight they looked fearful, Burney especially. His face was drawn

and twisted.

"We're facing the strangest thing that ever happened," Captain Patton began abrupity. "The operator told me you were on your way and that you had already seen it happen once. But, since I've been keeping this from the reporters as long as I can, you probably don't know the whole story. Within the past hour, in this city, eleven men have been destroyed! And they're just the ones we know about, the ones who were destroyed in public." He shoved a list across his desk. Dark looked at it.

As his eyes raced down the list, he felt the muscles tighten all over his body. He needed only a glance to see what happened. The names on that list, with two exceptions that he did not recognize, included some of the most prominent people in the country.

Luther Trent, inventor of the television system that made world-wide transmission and reception possible, head of the United Broadcast and Television Company. He had been making a speech at a testimonial dinner, the notes after his name indicated. In front of dozens of witnesses, the flaming death had struck him.

Then there was Samuel Mendel, head of the Mendel Company, largest builder of space ships in the world. In the midst of a dinner party in his own home, death had reached out for

him with fingers of fire.

Randolph Means, research physicist, one of the world's authorities on sub-ether radiations. He had been

reading in his library. His wife had heard him call. She had reached him just in time to see him vanish into burning death.

John Forbes, inventor of the magnetic torpedo. He had been playing cards at his club.

Carus at his c

Richard Marlow, metallurgical chemist. Lieutenant Cranton, an officer in the

rocket fleet.

Eleven men in all, Dark skipped the balance of the names on the list. He had seen too much. He raised startled eyes to Patton.

"What's happening?"

"That's what we don't know. We're not went certain whether it's a job for the Police Department. It may be a new form of disease. It may be anything. It struck without warning, and from the one report I've had, it leaves absolutely no clue behind it. One second a man is in the best of health. The next second he is—gone.

Except for the voice of the police dispatcher, controlling the activities of the radio cars, there was utter silence in that room. Dark could hear men breathing all around him.

Then the voice of the dispatcher was blotted out. For an instant the radio was still. Every eye in the room turned to face the receiver. The viewplate showed a strange distortion. The whirling lights that formed the image were blurred.

A powerful hum came from the receiver. The hum smoothed and be-

came inaudible

EFORE the eyes of the startled by police, a new image began to build up on the screen. The image wavered for an instant, overlapping the transmitted picture to which the receiver was tuned. Powerful radiations beat down and throttled weaker impulses. The image leaped to bold relief, the picture resolved itself into sharper focus.

And what a picture! In all his experience Dark had never seen any-

thing like it.

The face of a strange, other-worldly being flashed on the screen. Only the head of the creature showed. It was a head that had never grown on human shoulders. Protruding, pinpoint eyes, a short prehensile snout that moved mechanically forward and backward, huge flopping ears, and, rising from the glistening, metallic-looking pate —twin antennae.

The eyes were lusterless, fixed. They stared straight out from the vi-

sion screen.

For the first time in his life, Dark knew the meaning of fear. It surged through his veins like a flood of ice-cold water. He had faced death in many forms, but not in his wildest nightmare had he ever seen anything like this. Dark had never been to Mars or Venus—he hadn't had the time—but he had seen pictures taken on the planets and he knew that the steaming jungles of Venus had never spawned a creature like this. Nor the icy plains of Mars.

Where had it come from? What did it mean? Was it connected with those cases of the Flaming Death?

What did it want?

He knew that it was tremendously advanced scientifically. It used television and radio, it was able to impose radio signals on the wave length assigned to the police. That meant advanced knowledge.

The mouth-slit gaped open and it

began to speak.

The death that has come to many will come to all. When there is no man and no woman and no child left alive on Earth, then will my work be complete. There is no escape. There is no way to evade the death that strikes in flames. No matter where you hide it will seek you out. There is no refuge on Earth, nor in the waters, nor in the sky overhead. There is no safety anywhere."

A grim metallic voice mumbling a hideous message! It ended in a clicking gasp, then began to drone the same words over again, repeating the same identical warning. Before it had spoken two words. Dark was in action.

"Get the Federal Bureau of Communications on the phone. They maintain a twenty-four hour watch over the air. They're probably already using directional antennae on the station transmitting this message. Get the location from them and we'll find out what's back of this."

Patton, like a man coming out of a trance, snapped into action. He got through to the bureau almost instantly. "We'll have the intersecting lines

drawn in just a minute," came the answer.

Patton held the line open. He rasped an order into the inter-office communication system speaker.

"Dispatcher, as soon as you can get on the air, call all cars and order every squad not detailed on special orders to be in readiness."

As he spoke the grim image faded from the radio vision screen and the message died in a droning gurgle. The goggle-eyed face of the dispatcher came back on the screen.

"Yes, sir," he answered. Then his own vision screen showed him the air was clear again. His voice snapped through the room as he obeyed Pat-

ton's orders.

The visaphone rattled as the Federal Bureau came back.

Bureau came bac

"The station is located approximately twenty miles south of the Loop, apparently is on or very near the shore of the lake, and is near the old steel mills."

THE structure from where the mysterious broadcast had emanated was a four-story brick building, evidently an abandoned warehouse. Squad cars hovered in the air all around it, their spotlights outlining the house in bold relief. Others were arrowing down. The night was hideous with the wail of sirens.

Two cars were already on the ground, their searchlights trained on the door of the building. Blue-coated men with drawn guns were smashing the door.

"Down," Dark ordered. "They've already got it located." The whirling vanes slowed under Farrel's expert manipulation and the car slid gently to earth.

The door was already down and men were diving into the building as Dark leaped from the car, Burney and Farrel following him. They had just got inside the door when a shot sounded from the floor above. The sharp roar of the gun echoed down. Following swiftly behind it came another shot and then another. Abruptly, the shots ceased.

Dark pounded up the stairs, his hand yanking a tiny weapon from his inside pocket. It was a repeating spring gun with a compact magazine that held

nine explosive pellets.

An officer with a silly look on his face stood in front of an open door. He had a smoking gun in one hand and a flashlight in the other. He was looking into a room. His two companions were peeping around the edge of the door. They looked like three scared kids trying to make up their minds whether to run or go forward.

"What is it?" Dark asked, moving forward.

"In there-look!"

The monstrosity that had appeared on the television screen was in the room. It was sitting on a table. One eye was out, one antenna was crumpled. Two slugs had gone home.

Dark saw instantly why the cop had looked so silly after he had fired the shots.

He had been shooting at an inanimate statue, a mechanical gargoyle!

Dark strode into the room. The radio transmitter was compact but obviously very powerful, the telescan unit focused directly on the gargoyle. Touching nothing, he made a quick survey. He wafited to know one thing. Had this outfit served only as a relay or had the voice really originated in this room? Had someone been here and fied before the police arrived?

He found the answer. The set had not served as a relay for a signal coming from some other station. The voice had come from this room. But no one had been present at the time.

The voice had come from a device that was almost an exact duplicate of the voder, from a mechanical talking

machine.

Why? The word was a burning question in Dark's mind. Why had a voder been used instead of a much simpler voice record on tape? Was it because the builder of this station did not want to take the chance of putting his own voice over the air? Or—grimmer thought—was it because the builder of this station did not possess vocal

chords?

Why had such a grotesque image been used to flash over the radio? Was the image a representation of the builder of the station? If so, he did not belong to Earth! Had Earth been invaded? Was there an invisible hord of creatures on Earth? If so, then why this radio station?

Why this radio station in any case? Why go to the trouble of building and installing secretly a transmitter that would certainly be located when the only purpose that transmitter served was the very doubtful one of calling

attention to its existence? Dark turned to Burney.

"Go down to the car and call Captain Patton. Ask him if this station was heard only on the wavelength assigned to the Police Department. Find out if it blanketed the whole band."

Burney went down the stairs. The husky plainclothesman looked sick. When he returned he looked sicker.

"I couldn't get through to the capdrain. I got the dispatcher. He said Headquarters is being deluged with calls. The broadcast went out over the whole band."

"Ah!"

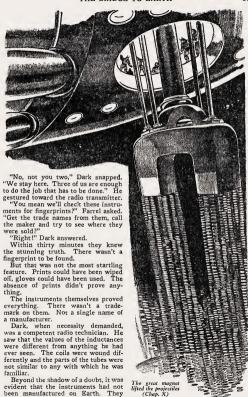
"Not only that," Burney went on.
"But people are still being destroyed
all over town. The list has grown to
twenty. The reporters have got the
news of what's happening—they got it
when this station went on the air—
and the air is hot with the story. The
radio newspapers are putting out special editions. The biggest panic that
ever hit this town is already started."

ANIC! That was the answer. That was the purpose of this station. To make certain that the news of the blazing death would be known to everyone. The result would be wild disorganization.

"Every officer and every squad car report back to the dispatcher," Dark instantly ordered. "You're certain to

be needed."

They obeyed him. Farrel and Burney turned to leave.



were alien, foreign, weirdly different. Where, then, had they been manufactured?

CHAPTER III

Dr. Bramwell

MIL HARDWICK had cold, gray eyes. Shrewd, calculating eyes. John Dark looked into those eyes and

asked a question.

"Hardwick, you're a mathematician," he began. "You can answer something for me. Mathematically, the fourth dimension exists. Is it conceivably possible that intelligent life could exist in that dimension?"

"John, why do you ask that question?" Hardwick asked curiously.

"Because I've just seen a radio station constructed of parts that were never made on Earth. Probably all of you heard the broadcast from that sta-

tion-"

Dark's eyes scanned the hotel room. It was the same small dining room in which Harrison Taylor had died so horribly less that four hours before. And the same men were in it who had been there when Taylor had been destroyed. They had returned, these scientists, and grimly gone to work investigating his death.

"Therefore," Dark went on, "because that radio transmitter was constructed of parts utterly alien to Earth, and because it was definitely connected with these amazing deaths, I make the logical conclusion that the creatures who built that station—and killed Harrison Taylor—did not come from Earth. I want to know, therefore, if it is conceivable that they are creatures from some higher dimension?"

A little stir ran through the grimfaced men when he finished speaking. Creatures from the fourth dimension on Earth? It was fantastic!

"The fourth dimension is a mathematical tool," Hardwick answered. "It is nothing more. Theoretically, it is conceivable that four, five, six, ten dimensional worlds exist. But science has no evidence to date that such worlds do exist in fact. In answer to your question, John, I would say that higher dimensional creatures are impossible."

"So was Harrison Taylor's death!" Dark snapped. "So are all these other deaths." He turned to birdlike Jerome Foster.

"Is there any known catalyst that in any manner whatsover could cause the instant disintegration of the human

body?"

Foster stared at him. "No!" he answered firmly. "Such a catalyst is un-

known!"

"You're a physicist," Dark snapped at Dick Small. "Do you know any of the answers?"

Small seemed to be the calmest man in the room. He was smoking a cigarette and when he raised it to his lips, his hand did not tremble. The other hand was thrust into his coat pocket.

"I hate to admit it," Small answered.
"But I am baffled. I can think of no agency to explain Taylor's death."

Dark groaned. "I came directly to you men for help, because I thought you could help me if anyone could. And all you can do is shake your head

and say no."

Hardwick leaned forward.

"John Dark," he said softly, "you know you can rely on us for any assist-

ance we can give."

Dark looked at the mathematician. He had known Hardwick for years. He felt a warm glow at the man's words. They would help—if they could. The trouble was they didn't

know where to start. It was up to him to find a place from which to start. He turned, started out of the room. "Where are you going?" Hardwick

called after him.
"I'm going to see if I can catch these

devils in the act."

Hardwick's gray eyes moved over his

"Be careful," he cautioned. "Death is everywhere tonight. And we could

is everywhere tonight. And we could not afford to lose you."

Dark nodded, went down the hall to the elevator. The keen super-senses that years of manhunting had given him warned him that Death lurked very near to him as he walked down that hall. But how near it lurked, he never knew until later.

CAPTAIN PATTON'S voice was a dry rasp. He was lucky to be able to speak at all. He had been on duty continuously since the night before.

Somehow the mad night had passed.

Morning had come.

"In the total absence of any definite clue, we did the only possible thing. We took a complete case history of every man who has died. I hope that can tell us something," the police official ended.

Dark nodded. Patton leaned his arms on his desk. Burney and Farrel sat on the edge of their chairs.

The room was fairly quiet, except for the hoarse voice of the dispatcher coming from the radio. Headquarters itself had a deceptive air of calm. There were few men in the building. They were all busy outside, trying to maintain the semblance of order in a frightened city.

At first, hastily assembled army units had attempted to isolate the city. Fifteen million people are not easily isolated. They had gone through and over the lines. The order for isolation had been abandoned. The army and the police were trying to make the evacuation orderly.

The broadcast had done its job of terrorizing humanity. It had been heard all over the United States, over much of the world. In the Chicago area, where the flaming death had ap-

peared, people began to flee.

Dark had spent the night working with the police. He had answered three hurried calls for help, three out of many. But the death left nothing

behind it.

"Your men did a marvelous job in obtaining those histories," Dark said warmly. "What was the result, if

any?"

"Plenty. Out of the heterogeneous mass of miscellaneous information one fact began to emerge that was common to most of the deaths. We haven't been able to check it in every instance for the simple reason that we have not been able to find anyone able

to give us the information. But in thirteen out of thirty-eight deaths, one common factor appeared."

"And that factor, Captain?"

Burney and Farrel leaned forward.

Farrel looked like a great dog catching the scent of prey in which to sink its teeth. Burney was sallow.

"I'm not certain it means anything, but this is it. Thirteen out of the thirty-eight men who have died so far were treated within recent months, for various minor ailments. by a

Dr. George Bramwell."

Dark muttered to himself. Farrel

blinked. Oddly, he turned and looked at his companion. Burney said nothing. He stared stolidly at Patton.

Patton's face looked as if it had been molded from bronze. His words were a harsh hiss.

"There is just a chance that this doctor may be responsible for these deaths."

Dark shook his head. "Sorry to disagree. I scarcely think it's possible."

ATTON sighed. He ran one hand over his forehead.

"It's utterly impossible, of course. But so are those deaths. I've got a squad scouring the city for Bramwell. When they bring him in, we'll see if he knows anything."

"Wait a minute," Dark said crisply,
"I could, by stretching my imagination, conceive of some connection between this doctor and these deaths, if
we hadn't found that radio transmitter, If Dr. Bramwell had built it, he
would have used parts manufactured
on Earth. Besides, he hasn't any motive for these deaths, nor for building
that radio station."

"Nor has anyone else,"

"I've thought of that, too. There is some desperate motivation hidden in the background, never doubt. But to discover that motivation with the evidence we now have at hand is impossible. We know that alien creatures are on Earth. We know they are alien because the parts used in that radio transmitter were not manufactured on Earth. These creatures may be hidden, somewhere, here on Earth. They may be operating instruments from some

secret refuge that cause these deaths. Their purpose we don't know, but their plan of attack is all too clear.

"First, they create a series of bewildering deaths. Then they broadcast a warning that the deaths will
continue. Thus they disorganize our
defenses before we have a chance to
get started. New York was almost destroyed in the last war. Chicago became the political and industrial center of the country, due to its position
inland. Therefore, they struck here
first. That they will strike in other
places, I have no doubt—unless we can
find some way to stop them."

"First, we have to find them."

"I know it." Dark said thickly.
"We're up against the toughest thing
that has ever happened. Toe thought
of a thousand ways in which these
deaths could have been accomplished.
In spite of what Hardwick said, there
is still the possibility that these aliens
are creatures from another dimension.
We have never discovered a four-dimensional object existing in our Universe. We never will, as long as we
have to depend on our five senses to
locate it for us, for the simple reason
that our senses cannot detect a higher
dimensional object.

"We couldn't see it, feel it, smell it, taste it, or hear it. Therefore we assume it cannot exist. On the other hand, until the invention of the electron microscope about a hundred years ago, nobody had ever seen an atom or a molecule. Yet the old scientists knew from mathematical reasoning that molecules and atoms existed. From the evidence we have gathered, we can suspect we are looking for something we can't see, feel, hear, smell, or taste, something that is invisible and imponderable, something that might be here in this room, at this moment, listening to what we're saying-"

As Dark finished, he saw Farrel's eyes go over the room, slowly, warily. Burney stared straight ahead, his teeth clamped together.

Gruff voices sounded outside the room. The door opened. A tired-looking officer stuck his head in.

"Captain, we've got Dr. Bramwell

for you. He wasn't at his home or at his office. We found him on the roof landing of the building where his office is located. He was just getting into his air-car to heat it somewhere."

"Bring him in."

PR. BRAMWELL was just a trifle flustered. He displayed the mild distress of an innocent man in the presence of the police. He was a middle-aged man, grave-eyed, neatly dressed.

"My dear sir," he addressed Captain Patton. "Can you explain why I have been apprehended and brought here against my wishes? I am not conscious of having violated any law. Your officers refused to explain anything and forced me to accompany them here."

"Sorry to inconvenience you, Doctor," Patton answered, "You are of course familiar with the events of the

past few hours?"

"If you are referring to these bewildering deaths, I know what I have read in the paper and heard over the radio. It is a horrible thing, a terrible thing." He shuddered. "But you have not answered my question. Disregarding my best interests, I have remained in the city this morning, to look after the welfare of my patients."

"We are interested in your patients, Doctor, extremely interested. We want you to tell us how it happens that thirteen out of thirty-eight people who have died have been your patients!"

"Thirteen!" Bramwell choked. "I did not know . . . Are you sure?" he demanded.

Patton showed him the list. He bent over to examine it. And when he bent over and adjusted his glasses, Dark, studying him with intent eyes, saw something that made his heart start pounding.

Attached to the watch chain looping across Dr. Bramwell's vest was a tiny horseshoe magnet.

A magnet! Why should anyone select such an odd ornament.

Dark's memory reached into the back of his mind and held before him a startling picture of what he had seen the night before. Lying under the chair against which Harrison Taylor had leaned when the flaming death struck him, had been a tiny horseshoe magnet. When he had first seen it, under the pressure of startling circumstances, Dark had ignored it. Later, when he had looked for it, it had disappeared.

And Dr. Bramwell carried an exactly similar magnet on his watch chain! Was there a connection between the

Was there a connection between the death that leaped out of nowhere, and magnets? It seemed far-fetched.

Bramwell finished reading the list.

"Can you suggest any possible connection between these deaths and your

practice?" Patton asked.
"It is incredible. There is no con-

nection. It is coincidence." Bramwell was badly flustered. Dark saw it but knew it meant nothing. An innocent man would have been equally flustered and unset.

"Have you been using any unusual treatment on these patients?" Patton

persisted.
"Nothing. Nothing at all. Mr. Mendel has been a patient of mine for many years. So have most of the others."

Bramwell regained his composure. He became indignant.

"Your insinuations are most insulting, sir. Merely because my patients have been numbered among the victims of this socurge is no reason to assume that I am in any way responsible for it. My reputation, sir, is beyond reproach. I demand that I be released from custody immediately."

Patton grunted. "Doctor, you understand it is my duty to pursue every possible clue, no matter how slender it may seem. I apologize for any inconvenience you may have been caused."

"Let him go, boys," he said to the ops.

"Just a minute," Dark interposed. He rose swiftly to his feet.

Bramwell had turned to leave. He turned again, faced his interrogator defiantly.

"I am interested in that strange object on your watch chain, Doctor. That tiny magnet. May I see it."



Dark held out his hand.

The change that came over Bramwell was remarkable. He seemed to lose control of himself. His whole body jerked as though he had been touched with a live wire. A fleeting change passed over his face. His hands came up, jerkily. His eyes narrowed. He gulped something, waddled backward.

Dark's suspicions were instantly aroused. He started forward. He made one step toward Bramwell, caught himself, and jerked backward.

ATTON was out of his chair instantly. The two cops standing behind Bramwell leaped away. Farrel was on his feet, grabbing for his gun. "Back!" Dark shouted. "Don't touch him."

A wash of flame ran over Bramwell's body. It came from nowhere, with the suddenness of a flash of lightning. It enveloped him in a blinding aura. For a second there was a faming ghost in that office. Then the flame hid Bramwell. It collapsed as quickly as it had come.

Bramwell was gone. There was a brown, singed spot on the rug. There was a faint odor of ozone in the room. Nothing else.

Patton's face was white. The two

officers who had brought Bramwell in looked as if they wanted to run but were remaining because they were too frightened to flee. Farrel held a useless gun in his hands, a look of utter stupidity on his rugged face. Burney had not moved. He looked like a nerveless statue.

"Right in my office!" Patton gasped. Dark's eyes were going over the room. He looked at the ceiling and the walls and the pictures on the walls. He studied the floor, the furniture, the men themselves. They saw what he was doing. They began looking.

"It's useless," Dark whispered. "If there is anything here in this room,

it's invisible."

Farrel spread his hands in front of him. He began grasping at the air. "You won't feel it either," Dark

said

"If means this," Dark spoke. "Bramwell was being used, without his knowledge. He was under the control of-something. In some manner he was being used as a means to accomplish several of these deaths. Incredible and impossible as it seems, that magnet was a part of that method. Carrying it openly on his watch chain was clever. No one would pay any attention to it if he carried it openly. I wouldn't have paid any attention to it if I hadn't seen a similar magnet last night.

If thought nothing of it at the time. It means nothing, then. It means something now. I don't know exactly what, except that it must be tremendously important. Bramwell was destroyed to keep me from getting a good look at it. Why he was destroyed and not us I don't know unless the thing that had him under control could destroy only him and not us."

"If it could burn him to death before our eyes it could surely burn us to death also," Patton insisted. A little color had come back to his face. A good slug of whiskey accounted for that. He had shared it with all.

"Perhaps. Perhaps not," Dark continued. "I suggest that the police keep a sharp lookout for anyone with a magnet. Advise the public by radio to report immediately to the police if they see anyone with a magnet. It may mean running down a thousand false leads, but if we get one good tip out of it. I'll be satisfied."

"Done."

"Good." Dark looked at Burney and Fallon, "Come on, boys."

"Where are you going?" Patton questioned.

"To Bramwell's office, for two reasons. One, to obtain the names of all his patients for the past six months and to order them to report for a complete physical examination. His other patients may be marked for death. The second reasom—to make a complete examination of his equipment." He flung the words over his shoul-

He flung the words over his sho der, walked out of the room.

CHAPTER IV

Death of a Cop

THERE was danger in that office.

Dark could sense it, feel it, almost touch it. He stood in the center of

the room, looking everywhere.

Through the open door he could
hear Farrel arguing with a frightened
secretary. She had been prim-faced
and defiant when they entered but
when they told her what had happened
to her employer, she had fainted.

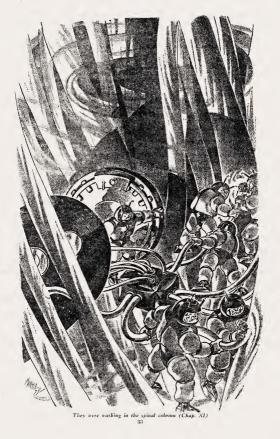
Farrel was arguing with her over the record of patients. Burney wasn't

saying anything.

There was something funny about Burney. He never said anything except to answer a question directly addressed to him. He would obey an order, he would do what he was told. Otherwise he kept silent. He didn't seem scared. He seemed to be wait-

Farrel got busy on the phone in the waiting room. Dark began to examine the instruments in Bramwell's office.

A modern X-ray machine, a fluorescope. Dark looked for the maker's name and found it. One by one he pulled open the drawers of a metal cabinet. Instruments. They looked perfectly regular. He didn't touch them. He had on a pair of tight-fit-



ting rubber gloves, part of the equipment he always carried with him, but even with that protection he was careful about what he handled. He might

touch the wrong thing.

He spent thirty minutes searching. He found nothing out of the ordinary. He had half expected to find a tiny concealed magnet. What it would tell him he did not know, but an examination under a microscope might have disclosed something.

Dark turned to the secretary, began

asking questions.

Dr. Bramwell's reputation was excellent, she told him. He had a good practice and a steady income. He could have had a larger practice if he had not chosen to devote a third of his time to work in the free clinic, donating his time and his service absolutely free to people who could not afford his fees.

Dark blinked. He had expected to catch a charlatan, a quack. Instead he had found a man with a spotless reputation. Her answer left him at a loss.

He changed his tactics.

"In recent months did you notice any change in Dr. Bramwell? Did he seem to be entirely himself? Did he pursue his usual routine?"

Her face showed that his question had hit home. She had thought of something and was trying to decide

whether it was important.

"There's only one thing," she said hesitantly. "He spent a great deal of his time at his summer camp in Wisconsin during the past few months. He has a small laboratory up there and he has been much interested in some experiments he has been attempting—"

"Laboratory! Experiments!" Dark echoed, his pulses leaping. Involuntarily he bent down to question the

secretary further.

The movement saved his life. The smashing thunder of a gun

roared through the waiting room. Against the opposite wall a mirror exploded into fragments of splintered glass. The bullet had been aimed at the back of Dark's head.

He whirled and ducked, looking for

the source of the shot,

Burney held a smoking gun in his hands!

His face a frozen mask, he was pressing the trigger for a second shot.

MARK threw himself sideward and forward. Smoke from the muzale of the gun lanced over his shoulder as he dived. His shoulders struck Burney just below the knees. The cop was trying for a third shot as his legs went out from under him. He fell heavily. Dark slugged at him and he slugeed back.

There was a relentless, vicious animal vitality about him. His motions
were a little slow but his strength was
phenomenal. He got his fingers on
Dark's throat, began to squeeze. Dark
tugged at them, struck at the leering
face above them, the face of a man
whom he had known as a friend but
who had suddenly changed into a
deadly enemy.

What had caused this unexpected attack? What had sent the lieutenant berserk? Dark's senses began to reel. His strength was draining away. Fingers of steel were closing tighter and

tighter on his throat.

Suddenly the fingers relaxed. There was a thud, and then another. Burney's face went blank. He sprawled on the floor. Dark staggered to his feet.

Farrel had a clubbed gun in his hand. He had struck his partner with it

"What in the hell happened?" he gasped. "I was phoning when the shot went off. I jumped. Burney had his gun out. He was shooting at you."

Farrel was dazed with bewilderment. He looked from Dark to the man on the floor. His bewilderment grew. Before his eyes Burney began to glow. Flame raced over him, reached its sudden climax, flared out into nothingness. Burney was gone.

"There's your answer," Dark gulped. "He was controlled similarly to Dr. Bramwell. Something had him. Something took over his will, forced

him to shoot at me."

"Oh!" Farrel muttered. "Oh . . ."
Monosyllables. Grunted sounds.

His wild eyes ranged over the room.

The hand that held the gun trembled

like a leaf in the wind.

Dark watched him, every sense alert. He didn't look for something in the room. He knew he wouldn't find it. He watched Farrel, watched his eyes. His hand slid under his coat, clasped around the tiny weapon holstered there. Dark leaned against the wall, watched the detective-lieutenant.

He had known this man for years, had worked with him, faced death with him, fought by his side. He counted Farrel as a friend.

He had counted Burney as a friend. Burney had tried to kill him. Burney had been under the control of some alien, inimical power. What about Farrel?

Farrel's eyes left off their questing, came to rest on Dark. He saw what

Dark was thinking.

"Oh . . ." he said. "Oh . . ."

It was the saddest sound Dark had ever heard.

"You think—" Farrel couldn't say it. The words stuck in his throat. Dark waited. He didn't relax his

guard for an instant.
"Oh . . ." The monosyllable was a

sigh.
Farrel turned the gun in his hand,
extended it butt first toward Dark.
Dark took it.

"I'm sorry," he said. "I think you're absolutely all right. I think you're normal, yourself. Your willingness to surrender your gun should prove it. But you may be acting. You may be controlled too. The same thing that got to Burney may have got to you. I can't afford to take a chance."

Farrel sighed. He looked at the brown spot on the rug and looked back to Dark.

to Dark.
"No," he said. "I'm not controlled.

I'm all right."
He spoke dully, without conviction.

"You'll have to prove it."
"I think I can prove it. I think I know what happened to Burney."

"What!"

NARREL nodded. "We were cruis

RARREL nodded. "We were cruising in this neighborhood about three weeks ago. He had a terrible ear-ache. I made him go a doctor. The doctor he saw was Bramwell."

Dark eyes narrowed.

"Why didn't you tell me?"
"I only remembered it when Bramwell's name was mentioned back in
Captain Patton's office. But I couldn't
imagine anything being wrong with
Burney. I couldn't believe it."

Farrel looked as if he still couldn't believe it. His partner, his side-kick

for twenty years. . .

Dark started to speak, then changed his mind. Farrel might be all right. He might not be. There was no way to know for certain.

"You call Headquarters and report what happened. Continue looking for one of Bramwell's patients. If you can find one, see that he has a complete physical examination. Meanwhile, I'm leaving."

He walked out of the door. He paused a moment. "You'll find your gun on the roof. I'm taking the squad

"Where are you going?" Farrel called after him. "Captain Patton will want to know."

Dark did not answer.

He went to the roof. Bramwell's helicopter was still there. He opened the door, saw at a glance there was a map in the holder. A neat red line led up into Wisconsin, ended in a tiny circle.

Dark slipped the map out of its holder, folded it, placed it in his pocket. He laid Farrel's gun in plain sight, climbed into the squad car, sent it ar-

rowing across the city.

A few factors in a mad equation were beginning to fit into place. He did not know the nature of the creatures that had launched this nightmarish attack. He did not know their motives. He knew they could control men, at least for short periods. They could dictate the actions of men. They could destroy men.

Through Bramwell, they had got to Burney. When the time came they had seized control of Burney, forced him to attempt murder. When his attempt failed, they had destroyed him.

If they had had a choice of a method other than the clumsy attempt to murder Dark, they would certainly have used it. If they could have used their flaming death on him, most certainly they would have done so. They hadn't. Therefore their actions were limited.

How did they secure control over men? Was there a dark doorway somewhere? A man opened it and a weird, inimical power waited for him across the threshold? What was the nature

of that doorway?

Bramwell had opened it, perhaps unknowingly. Perhaps he had been experimenting, and one of his experiments had resulted in disaster. He had opened the lid of Pandora's box.

However that door was opened, it was obvious that no one was wanted at Bramwell's laboratory. The attempt to kill Dark had followed as soon as he learned of the lab's existence.

He knew, in following that red line into Wisconsiin, he was walking into danger. He must take all possible precautions. He set the squad car down on the roof of a tall apartment building.

John Dark was gone almost an hour. When he returned he had changed clothes. He wore a brown suit, soft

pliable shoes.

The suit did not fit him very well. It bulged around the middle and the shoulders did not quite disguise the flat pack worn at the back. And the pockets sagged.

He didn't care how it looked. For probably no one, he knew, would see it.

CHAPTER V

The Sound of Howling Winds

ARK watched the sky. It was alive with traffic. But the evacuation of Chicago was being accomplished in an orderly manner.

Far overhead, in great circles, a rocket ship moved. A ship from the fleet on guard over the city, keeping watch and ward over the lanes that led in from space. There were others within call. Grim guardians of the stratosphere.

Dark watched the sky. All over the

world millions of others watched. Hidden death lurked on Earth. It waited

behind a closed door.

But if Death moved through the sky, Dark did not see it. If it moved through the air and entered the air car, he did not know when it came in.

He followed a red line drawn on a map. It led him into the lake country of Wisconsin. It ended over a tiny lodge set among evergreens. The section was remote. No other human

dwelling was near.

The sun was dropping down toward the west when Dark finished his journey. He did not land immediately. He cruised in narrowing circles.

If a ship capable of traversing space was hidden in that vicinity he did not see it. A small ship might be there, he knew, hidden among the evergreens. He might be landing among a nest of enemies. It was a chance he had to

take. Dark

Dark set the car down a mile away from the lodge, got out, walked casually into a clump of shrubbery. Any observer might have seen him go into the clump of trees. But only a superhuman observer could have seen him come out.

When he was securely hidden by the shrubbery, Dark stopped. One hand moved toward a tiny switch block attached to his belt. When the switch was closed, a soft hum came from the flat pack he was wearing under his

He stood still, waiting. He took a pair of heavy goggles from his pocket, slipped them on. He touched the switch on his belt again. The hum from the pack grew to a shrill whine that was almost inaudible.

A burst of metallic lusters seemed to roll over his body. If an observer could have seen what was happening in that tangle of shrubbery, he would have been vastly surprised.

The metallic lusters deepened, became a dim haze. The haze promptly cleared. It vanished. And John Dark vanished with it.

He had become invisible.

The equipment that made his clothes bulge so suspiciously was an invisibility generator. It did not cause absorption of light rays. Absorption would have resulted in a blotch as black as midnight that would have been certain to attract attention. The equipment did not bend the light rays around his body. It produced an effect similar to fluorescence.

In bright sunlight it would not work. In bright light it would fool a distant observer. It would not deceive a camera. But in any illumination except the best light, it would fool the human eye. Of course, even an invisible man could be readily detected by the sense of touch. But Dark did not expect to be touched.

AKING care to remain as much in the shadow as was possible, Dark walked toward the lodge. The goggles, of a special variety of lens, enabled him to see.

Once he almost stepped on a rabbit. It laid its ears back and went scuttling off through the brush. An early-flying bat wheeled close to him. The bat instantly detected his presence. Not by sight—the bat's eyes are very weak—but by some weird sense bats possess. Artificial invisibility could fool a rabbit and a man. But not a bat.

If there were alien creatures in or around Bramwell's lodge, would it fool them? He did not know that answer. There was only one way to find out.

veal the source from which it was fired.

He had no occasion to use it. He was not molested in any way. The slope was silent, the lodge silent and deserted. Almost too silent, almost too deserted. It was a one-story, three-room affair built of logs. Nor at all pretentious. The windows were protected by heavy wooden shutters, but the shutters were open.

He went from window to window, looked in. The lodge was deserted.

Or was it? Did something wait for him inside, something he could not see? Was the source of the flaming death here in this vacant lodge?

He tried the back door. It was unlocked. As he pushed it open and slipped inside, he felt the hair rising along the nape of his neck. The sixth sense that all good manhunters possess warned him that here was danger.

He was an invisible manhunter searching for an invisible menace. Only he wasn't hunting man. He was

hunting something else.

He was in the kitchen. The room had been intended for that purpose as the small stove and the cooking equipment showed. But it had not been used recently. Apparently Dr. Bramwell had made flying visits to this lodge, not staying long enough to prepare food.

Walking on tiptoes, Dark moved forward. The next room had been used as a combination bedroom and library. The bed had not been made. The walls were lined with bookshelves. Most of the books were standard medical tomes. But something on the table caught his eyes.

A tiny magnet.

He strode forward. As he moved, he heard a sound in the lodge. It sent his pulses pounding. It was a whooshing sound, like a sudden rush of wind.

But there was no wind blowing. The air outside had been quiet.

It came from the kitchen. Dark crouched, every sense alert, his gun ready.

Was there something here in this lodge, some other invisible being, some dark alien monstrosity that he could not see? The sound came again. It resembled the rush of air from a pipe. An air hose suddenly broken, releasing air under pressure, made a sound like that.

A WIND, a wild wind blowing. A wind that came from nowhere, that leaped into existence out of nothingness. The lodge was alive with the sound. And the air was actually moving. Dark could feel it blowing past him, touching his skin with an icy breath. A piece of paper floated upward.

The wind died. Instantly it came again. Dark saw something come from the kitchen. The lodge was a place of shadows, yet something was bulged in the doorway, almost as large as a man. Black and threatening, it stood in the door, effectively blocking escape in that direction.

Dark's gun hummed in his hand. The jar of the explosion was like a clap of thunder as the explosive pellet struck. It hit the dark creature in the doorway dead center. The monstrosity

was gone.

Dark was on his feet. The lodge was rocking with a wild bedlam of sound. It seemed to him that all the winds that ever howled over Earth were loose. Torrents of screaming air buffeted at him. And as each blast struck him he saw that another montrosity had leaped into existence in that cabin.

Out of nowhere! Coming from nothingness. Leaping into existence in all of the three rooms, surrounding him.

His gun throbbed in his hand. The explosions coalesced into each other with the rapidity of machine-gun fire. In the bright light that flamed from the bursting pellets he saw the creatures that were attacking him. Incredible beings!

As fast as he mowed one down another seemed to leap to take his place. They didn't attempt to use any weapons of their own. Coming from all directions, they surged toward him like a rising wave. Whether they could see him he did not know. Certainly they could feel him.

Fingers gripped him. Talons dug into him. Something smashed against his skull. Fire flared before his eyes.

Unconsciousness swept over Dark and he seemed to drop a million miles into a pit, into the jaws of death.

CHAPTER VI Incredible World

OHN DARK opened his eyes and the darkness went away.

He was in a room. He was on his

back, looking up at a metal ceiling. Just above him, in the ceiling, was the square outline of a trap door.

His mind was fogged. His head was splitting wide open. His body felt as if it had been twisted and distorted out of shape. It telegraphed sensations of weakness. He needed all his strength inst to keep his eves open.

Where was he? What had happened? Why couldn't he think?

There was a door before his eyes. Sometime in the past he had been concerned about a door. If you opened a door you might find something on the other side of it. You might find flaming death waiting for you if you opened some hidden door. . . .

His memory came surging back.

He was John Dark. Men had been killed in Chicago. He had been trying to discover what menace was stalking through the city. He had been trying to learn the connection between magnets and flaming deaths and friends who tried to kill you and incredible nightmares and howline winds.

He had gone into a lodge. He had been invisible. Of course, the door had betrayed him when he opened it. But he had looked in all the rooms before he opened the door and nobody had been in the lodge. Or nobody that he could see. His attackers had come out of nowhere, with the sound of howling winds.

Dark closed his eyes. It felt better that way. He wondered if he had enough strength to move his head so he could see something beside the ceiling overhead if he did open his eyes again.

A sound caught his attention.

It was a groan. It came from somewhere in the room. It came again.

Dark sat up. A wave of weakness overwhelmed him. He held his head in both hands, his eyes closed. The weakness went away. He opened his eyes.

He was looking straight at Lieutenant Burney!

With the memory of that murderous attack coming back to him, Dark fumbled for his gun. He didn't have it. His coat was gone. His invisibility generator had been removed.



A gigantic foot was coming down near him (Chap. XV)

draw my gun and shoot at you. I didn't have any control over myself. Honest, John, I wouldn't have shot at you, God, man, I didn't mean it. I tried to keep from drawing my gun, but I couldn't hold my arm.

Dark took a long breath,

"Well," he said. "Well!" It wasn't what he had intended to say. His vocal chords were getting so many orders they couldn't obey them all.

"Please," Burney begged. "Please believe me. . . . I didn't mean to do it. Honest I didn't. . . ."

"Forget it." Dark swallowed rapidly to make his vocal organs behave.

"I believe you."

Burney broke into a cold sweat. Dark watched the cop closely. Burney seemed badly shaken, but otherwise all right. The weird control that had fastened on him seemed to have lapsed. There were dozens of questions Dark wanted to ask. How had he and Burnev got together? How had all these men been brought to one spot?

Had they been projected through a dimensional shift? Was that the explanation? Did a gateway open, exposing the fires of hell? While the gateway was open, were men snatched through it into some higher dimension? Was that the way the incredible invaders operated?

Too many questions. There was no

answer for any of them.

Dark looked up at the ceiling again. Metal-was he on board a space ship? He listened. The groaning of awakening men came to his ears. Otherwise there was no sound. No throbbing of rocket charges being fired. No sensation of acceleration. Only deep silence.

There was a row of round ports at the end of the room. Through them light was coming. Dark slid down and walked unsteadily toward them. He steeled himself to look out. He took one glance and abruptly jerked his

eyes away.

Burney, holding to the shelves for support, came toward him. "What-what is it?" he faltered.

"What's out there?" "I don't know. It doesn't look like

anything I've ever seen before."

He turned back to the port. Stretch-

ing away to the horizon, reaching off toward the infinities of space, was a plain, black and wrinkled. Utterly barren, without the slightest sign of any vegetation of any kind, twisted and wrinkled but unrelieved by any elevation rising five feet above its surface, the plain stretched away and

Over it, and as black at it was, was the cup of space. Out of the blackness of that space, light from a billion unwinking luminaries poured.

The stars of outer space.

Dark gasped. He knew what he was seeing. He was seeing the stars as they were never seen from Earth. There was no atmosphere between the port through which he was looking and those unblinking orbs of infinitely distant light. There was no air over that plain to diffuse the starlight.

Airless, under the eternal stars, the plain stretched away. Whether it was metal or stone he could not tell. It

looked like lava.

"Look!" Burney whispered, pressing his nose against the glass of the port and peering off to the left.

DARELY visible in that direction, a huge white ball floated serenely in the sky.

"The moon!" Dark ejaculated.

"It's too big," Burney protested. "We're not seeing it from Earth," Dark explained. He started to add that they were looking at the moon as seen from a rocket ship. But with that black plain stretching away in front of him, he knew they were not on a space liner. However, there was no doubt that the huge sphere was the moon. He could easily distinguish the Mare Imbrium and other seas, as well as craters.

Automatically Dark turned to the right. There was only one explanation of that huge shadow arc obscuring the stars at the extreme right. Earth! The night-side of Earth, He

couldn't see all of it because the structure in which they were imprisoned blocked the view. But he could see a part of the eastern edge.

Earth to the right, moon to the left. "We're in space," Dark diagnosed. "We're about halfway between the Earth and the moon!"

"Uh?" said Burney. There was dumb bewilderment in his voice, "How did we get here?" the officer continued.

"The most important question ishow did this thing we're on get here?" Dark countered. "I can only guess at its exact size, but it seems to be half as big as the moon. Why hasn't it been discovered? Space ships and freighters make regular trips to the mines on the moon. Why haven't they discovered this asteroid, or planet, or satellite, or whatever it is we're on?"

"Maybe it just arrived?" Burney

reasoned.

"Then why didn't observatories on the Earth and on the moon see it coming? Hell, you couldn't run a planet half the size of the moon across the Solar System without thousands of keen eyes spotting it, not to mention the telescopes that are constantly in use both for visual observation and for photographic purposes."

"I don't know," Burney said slowly. "Maybe it came too fast to be seen."

"Maybe it didn't," Dark retorted. "Do you have any idea how much power would be needed to move an object this size so fast it wouldn't register on a plate? Or so rapidly it couldn't be seen by the human eye? Billions of horsepower. The odds are about a million to one we will never get away from birds so scientifically advanced!'

"You're a pessimist," Burney retorted. "They're sure to see this thing from Earth. And when they do see it, the space fleet will be up here with guns and bombs and the monkeys that pulled this smart kidnaping stunt will find they've bit off more than they can

chew in the next hundred years. "Kidnaping, hell! There's more than kidnaping back of this. Kidnap-

ing is only the beg-"

Dark stopped in mid-sentence. The heavy tread of footsteps had re-sounded from the ceiling. The footsteps stopped. There was the scrape of metal. The trap door opened.

The head that peered down into the room had never grown on human

shoulders. Sharp beady eyes, large ears. And rising from the glistening pate, two upright antennae.

Burney's indrawn breath was a

sharp hissing sound.

The eyes glanced sharply over the room, came to rest with flashing quickness on the two Earthmen. A hand motioned to them to draw near.

"Come on," said Dark, walking forward. "We might as well do what they want us to. We haven't got a chance

in a million to resist."

CHAPTER VII

Marl

POUR of the creatures waited in the corridor above. They swung down a light ladder and Dark went up, Burney following.

Two legs, two arms, their bodies

roughly followed the human form. Only those antennae sprouting from the skull were entirely different from any appendage of the human body. And when the leader handed a closefitting skull cap with a small metal box attached, to Dark, he saw that the antennae were artificial. They were made of metal and were attached to the cap.

Three of the creatures held bluntnosed weapons on them while the leader indicated by signs that they were to put the caps on.

Burney hesitated. His hands were balled into fists on which his gnarled

knuckles showed white.

"Don't try to jump them," Dark said quickly, seeing what his companion was planning. "They'll blast you down if you resist. Put on that cap. It's a thought helmet of some kind."

It turned out to be a radio telepath, a marvelous invention which gathered the thought currents originating in the mind, amplified them, sent them out from the antennae on a radio micro-wave carrier.

As soon as Dark slipped the cap over his head he felt the vibrations of alien thought pulsing through his mind. A thousand questions tumbled over themselves as he tried to answer. He might be a captive, he might be in danger of immediate death, he might be facing an incredible fate, but the thing that was uppermost in his

mind was a wild curiosity. "Silence!" came the whiplash of the leader's reply. The thought leaped

into Dark's brain like a jabbing current of fire. He was silent.

"Follow me. If you attempt resistance, my men have orders to beam

The leader moved down the corridor. The other three lifted their bluntnosed weapons. Two were trained on Dark and the third on Burney.

Dark shrugged, fell into step beside Burney. They were led downward, along interminable metal corridors which were swarming with aliens. Occasionally, through open doors, they caught glimpses of rooms opening from the corridor. One of the rooms was apparently a chemical laboratory. Oddly shaped retorts fumed in that lab. In another room they had a glimpse of intricate machinery and caught the soft hum of generators. They saw aliens everywhere, And all of them were as busy as bees about a hive.

The aliens stared with eager curiosity at the two Earthmen walking in front of their guards. Their thoughts buzzed in Dark's mind. He caught vague flashes of their meaning, enough to understand that these creatures called themselves Marlings, were preparing for a new raid on Earth.

Their guide stopped before a heavy door. Two Marlings with drawn weapons stood on guard. The guide saluted.

"I have brought two of the captives," he explained. "For an audience with Marl, as ordered.'

"Enter, Marl is waiting,"

The door swung open. The guide dropped on his hands and knees and began to crawl forward. Dark and Burney started to walk behind him. They were free-born citizens of Earth and they had no intention of crawling into the presence of anyone.

A sharp command from the guards behind jerked their heads around.

"Crawl!" came the order. They shook their heads.

The guards instantly lifted their weapons. A harsh haze flared from the muzzles, seeped into their bodies.

To Dark it felt as if every muscle in his body was being torn apart. Screaming agonies of pain flashed through him. He gritted his teeth, tried to endure the pain, but it beat into his mind in a bursting flood of red agony. Perspiration oozed out all over him.

Beside him, Burney sank to the floor. Dark groaned, collapsed.

The guards turned off their weapons. The pain faded to a dull throb-

"Now will you crawl?"

They crawled. They knelt before

DEADY eyes regarded them intently. Marl sat in a low chair, his hands resting on buttons set in the His skin was wrinkled with age. Only his eyes were alive. The vivid pulse of his thoughts leaped out to them, asking a question.

Dark understood the question perfectly. How to answer it was another matter. Marl was asking information about Earth. He wanted to know what progress men had made in solving the attack that had been launched against

Dark shook his head defiantly.

"Very well," Marl flashed back at m. "The information is of slight him. importance, but even so, we can easily secure it. I prefer not to destroy men at this point, but unless you answer my questions, I have no alternative." He motioned to a detail of guards. They saluted and left the audience

chamber. "You can secure no information

from dead men." Dark thought slowly.

"And I doubt if torture can wring information from us." He looked at Burney. The cop's face looked as if it had been carved

from solid granite. "They'll get nothing from me," he whispered.

"You will not be tortured," came the thought from Marl. "We will merely probe your brain and secure the facts directly from it. Unfortunately, you will not survive the probing."

"What?" Dark gasped.

Marl said nothing. He remained impassive. His face showed no sign of emotion. But his eyes sparkled brighter.

The guards returned. Marl glanced

toward them.

"Either answer my questions, or I will have the information taken from

you."

Dark saw the equipment they were setting up. Bright, gleaming knives, probes, lances. They wheeled in a heavy table equipped with straps to hold the squirming victim rigid. They brought in electrical equipment the function of which Dark could not guess.

He saw enough to convince him that Marl meant what he said. Somehow the Marlings were able to probe the brain, a feat the scientists of Earth

had never attempted.

If necessity demanded, Dark would face torture. But facing this torture would result in no gain. The information would be extracted from him and he would be killed. A dead man would not be able to do anything to aid other men. It was better to talk, and hope that somehow, sometime a chance to escape would come.

How desperate that hope was, he well knew. Even if he managed to elude the Marlings, he would be ma-

rooned on an airless world.

"No," Dark said. "We have not solved the attack you have launched against us. Even if we had had warning, we would have been helpless. We are completely baffled."

The eyes of Marl gleamed brighter as he caught the meaning. Satisfac-

tion glowed in them.

"But we will solve it," Dark said quickly. "This satellite circling Earth will certainly be discovered, and when that happens hell will pop!"

Dark painted a swift picture of the sky full of fighters, rocket ships screaming down through the void, bombs bursting, as Earth discovered the source of attack and sent out her fleet to exact retribution. ARL laughed at him. His face showed no sign of emotion, but his eyes sparkled with malevolent

laughter.
"It might interest you to know,

Earthling," his thoughts sped out, "that your capable astronomers have not discovered this world even though it has been circling your planet for two of your years!"

"Two years!" The startled thought leaped unbidden from Dark's mind. "That's impossible! Unless," he amended as a quick doubt struck him, "it's invisible. And an object the size of this could not be made invisible by any means known to the science of Earth."

The laughter came again.

"It is not invisible."

"Then what is it?" Dark exploded.
"How does it remain here undetected?
Where did it—and you—come from?"
In his excitement, Dark rose to his

feet. Behind him a guard lifted a weapon. He did not see it. He had forgotten his danger. He had forgotten everything except the questions burning in his mind.

Mari⁷s command lashed out to the guard, checked the rising weapon. "I find this Earthman interesting.

Do not destroy him. He will make excellent material for us."

Dark caught a grim meaning in Marl's statement. He ignored it. There were other questions he wanted answered.

And Marl answered one of them.

"We came," his thought flashed out, "from within the Solar System—from one of the moons of the planet you call Jupiter!"

From one of Jupiter's moons! From within the Solar System! Marl used a word to designate their home planet but the word had no Earthly counterpart and its meaning was not con-

veyed.

From Jupiter, the giant among the planets! Exploration from Earth had not advanced to that planet as yet, possibly would not, for the reason that a rocket ship would have great difficulty in fighting clear of the gravity of the mighty planet if it landed on Jupiter. Exploration would eventually

extend to the satellite system at some time in the future.

"Then we're on a gigantic space ship circling Earth!" Dark thought.

Marl caught the thought.

"No," came the answer. "Our race has not yet achieved controlled space flight. Would that we had!" there was a sigh in the thought. Then Marl went on. "Our telescopes revealed to us, to our envy, that your race had developed space flight. But in spite of many experiments, we have never been able to achieve success. In that one particular field, we are temporarily behind your scientists. In other fields, we are infinitely further advanced."

The Marlings did not have space flight! Then how had they come here? Dark blinked. His mind was in a whirling daze. For two years this gigantic globe had circled Earth, and had remained unseen. That was one

mystery.

The globe had been brought across the void of space from Jupiter! That was another mystery. And the globe itself was a third mystery. Impossible event piled on impossible event.

What was the solution?

Lacking space flight, how had they flung a bridge to Earth? What extreme conditions forced them to such a colossal undertaking? What tremendous menace threatened this race, forcing them to reach out across the void of space? Had they-Dark put the thought into words.

"Did you," Dark thought, "move your whole world across space?"

In his mind was the vague thought that this was impossible. But he had seen so many incredible feats that he was no longer sure where the possible left off and the impossible began,

The yearning sigh in Marl's thinking was very manifest. "No . . . If we could only do that! Unfortunately, even with our present knowledge, such a task is beyond our power."

"But," Dark persisted, "this globe is between the Earth and the moon. Somehow it was placed here. Disregarding the method by which it has escaped discovery, how was it placed here? What source of power do you have that enables you to move this gigantic sphere?"

Marl leaned forward. There was a mocking glitter in his eyes.

"This globe," he said, "is not as gi-

gantic as you think!"

"What?" Dark gasped. "But even if it is only a few miles in diameter-and using my own height as a yardstick I can see it must be at least that largeyou would still require a tremendous amount of power to move it."

NROM the twin antennae rising over the head of Marl there leaped a question that struck John Dark with stunning force.

"How high are you, Earthman?"

Dark could not answer.

Marl laughed, "You mentioned that, judging by your own size, this globe must be at least several of your miles in diameter. I asked you, in reply, how high are you? What is your measurement from heel to head?

"Six feet, one inch-"

Again that silent laughter convulsed Marl. Dark caught the rustle of echoing laughter around the room. The Marlings were all laughing at him.

A sudden, soul-shaking doubt seared Dark's mind. How tall was he? What did Marl mean? Was he really six feet, one inch tall? Or had something been done to him while he was unconscious? Had the same thing been done to all the Marling victims? How tall was he?

He looked up at Marl.

"Is this globe really only a few feet in diameter?" he whispered, the thought leaping from his telepath. "Or perhaps even smaller than that? Is that how you brought it across space, by reducing its size? Is that how it remained here for two years undetected? And am I--"

"Take them away," the ruler snapped.

The thought helmet and its attached radio telepath were roughly removed. They were herded out of the room.

Dark's mind was in a turmoil.

THEY were back in the room with the other prisoners. The trap

door overhead was closed.

"There is only one possible conclusion," John Dark told the tense circle of men surrounding him. "We have

been reduced in size!"

He hesitated, stilled the babble of questions with a wave of his hand. "Every bit of evidence points to that fact. This globe could not have remained between the Earth and the moon for two years without being discovered if it is as large as it appears to be. Astronomers would caught it in their telescopes, freighters on the moon run would have sighted it. On the other hand, if it is relatively small-a few feet in diameter at the most-it would not show up in the telescopes and freighters would notice it only by accident. It might circle Earth undetected for centuries." Dark paused a moment, thoughtful.

"But this globe was brought here from one of the satellites of Jupiter! How it was transported here I don't know, but if it is as large as it appears to be, more power would have been needed to move it than can be easily imagined. If it is small, on the other hand, little power would have been

needed."

He looked at the men. Horror and hopeless despair were written on their faces,

"You mean—" Burney muttered.
"I mean." Dark interrupted. "That
this world we're on is probably not
over two or three feet in diameter.

over two or three teet in diameter.

And that we, and the Marlings, are so
small that if we were back on Earth
you would need a mighty good microscope to see us!"

cope to see us.

CHAPTER VIII

A Question of Relativity

EAVY silence pervaded the room as Dark's statement sank in.

"Either the Marlings are naturally microscopic in size," Dark continued, "or they have reduced thousands of their kind to microscopic form, placed them on this globe, and in some man-



Dark reached down and lifted Marl (Chap. XX)

ner hurled it out toward Earth. I can't even guess how they got it here, or how they reached Earth from this globe. But they did get to Earth. Once there, their plan seems to have been to reduce in size, and kidnap, many of Earth's outstanding scientists. And what we termed the Flaming Death was their activity as they reduced men to microscopic size."

A babble of questions broke from the group. There were men present who were capable scientists-Mendel, Trent, Forbes, Marlow, Taylor, others. They had regained consciousness while Burney and Dark were gone.

Dark silenced them.

"Gentlemen," he said. "I don't pretend to know the details as yet. There are any number of questions that cannot be answered. How do the Marlings reduce not only themselves but others in size? Any answer I gave you would be a guess. This much is certain. The densest matter we know, including lead and gold, is in reality about ninety-nine and ninety-nine one-hundredths percent space.

"The actual planetary electrons of an atom, the nucleus included, only take up a very small percentage of the space occupied by that atom, the distances between the electrons and the nucleus being relatively as great as the distances between the sun and the other members of the Solar System. But if those electrons, while undisturbed in their relative position, could be forced inward toward the nucleus. the result would be an atom that had shrunk in size remarkably!"

Dark snapped his fingers.

"That's it. That's the explanation of the flame that leaps from the bodies of the victims of the Flaming Death. When the electrons are forced inward, they necessarily emit energy. Most of the energy they emit is of a type we can't detect without instruments, but part of it is in the visible range, resulting in that vivid flare of light which gives the impression that a man has burned to death. In reality, he has shrunk rapidly in size and given up a great amount of his energy.

The tense circle of men faced him. There was bewilderment on their faces. They looked at each other, and at him, measuring themselves with their eyes.

Harrison Taylor spoke.

"It seems incredible. But I can advance no alternate explanation that will account for the facts we know. We seem to be the same size we have always been. Our eyes tell us we are. But, in the absence of an acceptable standard of measurement, we cannot rely on the evidence of our eyes. If entire Earth, and everything on it, instantaneously shrunk to half its normal size, including all our yardsticks and our meter bars, we would never know that anything had happened. And as long as we remained on Earth we would never know that we were only half as large as we had been.

"If the other planets were unaffected by this hypothetical shrinking, and if we had space ships either on them or in space, the return of these ships to Earth would give us our first indication that something was wrong. We would be inclined to say that the ships had suddenly doubled in size. It is a matter of relativity-"

The scientists understood what Taylor was saying. They nodded in agreement. But their puzzled wonder persisted.

"How large are we, actually?"

ARK lifted his hands in a helpless gesture.

Taylor spoke again. "There is no way of knowing," he said. "I suspect, as Mr. Dark suggests, that we have been reduced not to half or quarter size, but to the size of microscopic objects. Perhaps we are as large as microbes, perhaps we are smaller. It is almost certain we would be invisible to the naked eye of a normal person."

Dark watched the faces of the men as Taylor spoke. He saw doubt change to despair and fear change to sullen anger. He saw hope replaced by grim resignation. Faces dropped, chins sagged, eyes went lusterless. stopped looking at each other.

But there were questions still. "How do the Marlings work this reduction process."

"It is possible," Dark answered, "that there is a man present who can give us an accurate answer."

He meant Dr. Bramwell. There were at least fifty victims of the Marlings present. Burney had been reduced in Dr. Bramwell's office. others in as many different places. Dr. Bramwell had been reduced in the police station. It was possible that he had been brought here too.

"Dr. Bramwell-" he began.

The room was almost instantly alive with angry men.

"The traitor."

"I was his patient." "So was I."

Dark lifted his voice. "Bramwell. I think, was not responsible for his actions. It is a matter that we can easily settle. Is Dr. Bramwell present?"

Dark could not see all the faces. There wasn't enough light, for one thing. There were too many faces, for another. They were crowded too closely together.

It did not take the prisoners long to answer his question. They went over the entire chamber, looked on every shelf. They passed in a long line before the ports and the light coming in streamed across their haggard faces.

Dr. Bramwell was missing. Dark sighed. Bramwell could have told him many things that he wanted

to know.

"I think it was like this," he explained. "The Marlings controlled Bramwell, had him place microscopic Marlings in the bloodstreams of his patients. Since he was a doctor, he could have done this easily, without being detected. Or he may have injected a microscopic device into the bodies of his patients.

"Through remote control of this tiny machine, the Marlings were able to reduce their victims when they desired, or to control their actions at will. Of course, the reduction may have been managed in an entirely different manner. But I think this much is true! Bramwell was a center of infection. There may have been other centers, probably were, probably still

Dark wondered what was happening

back on Earth. Was that flaming scourge still stalking a panic-stricken Had Captain Patton population? made any headway? One question kept plaguing him. It was the most important question of all,

NAYLOR was worrying about the

same thing.

"You have talked to these creatures," he said in his soft voice. "Did they give you any indication of their purpose? Why-"

"What's to become of us?" another

voice spoke.

"Yes, that's it. What are they going to do with us?"

That same grim question had been in the mind of every person present. Each had been trying to avoid voicing

John Dark, his mind on that grim figure he had faced back there in the audience chamber, remembering the wicked-looking instruments that had been brought in when he refused to talk, recalling the malevolent glitter in the eyes of Marl, tried to answer them.

"From a hint the high panjandrum let drop, I think they want several things. One of them is the secret of With their telescopes, space travel. they have seen ships crossing between the planets. They want to know the secret of operating those liners whose flight they have envied. I think, also, they want the cream of our scientific knowledge. We are ahead of them in some fields. They want to catch up with us. And I suspect there is a third reason for this attack, a third thing they want-"

His voice ran off into silence. Then the words dripped slowly, heavily from

his lips.

"They have gone to the trouble of reducing us in size, bringing us here to their circling world. Therefore they must have some use for us. That purpose they refused to divulge. attempting to determine what possible use they could have for us, your guess is as good as mine." He was speaking in a whisper.

"Back on Earth they think we're dead. Unless we can by some means escape from this world, or unless we can warn Earth-we would probably be much better off if we were dead."

John Dark wasn't trying to instill fear in the hearts of his fellow prisoners. He was giving them the truth as he saw it.

Instinctively the men regarded him as their leader. All of them had heard of John Dark, the man of mystery whose whose exploits had become almost a legend. If he could suggest what to do, they would follow his lead.

Burney looked upward.

"I can reach that trap door," he said. Dark didn't answer him. He had already thought of that trap door. But, even if they could push it open from below, guards were waiting above with deadly weapons.

If he had his equipment! If he had the instruments and the devices he had perfected. A make-up kit that would enable him to change his appearance almost instantly. A small package of tiny tools made of hardened steel. Vials of acid in glass bulbs as small as the head of a pin. Crush the bulbs, and choking fumes arose. Gas.

Only one thing had the Marlings missed. The buttons on the sleeves of

his shirt!

Dark strode to the ports, held the buttons in the open light, squinted at them. The buttons were miniature smoke bombs. They were hollow and filled with acids. When the acids were exposed to air, an intense smoke resulted.

He walked back, pulled himself up on the shelf directly under the trap door. Gingerly, carefully, he extended his hands to the metal, pushed against

It didn't budge.

Burney climbed up beside him, added

his strength.

"We'll have to wait until they open it," Dark said. He didn't add that he hoped it would not be opened for hours, which would give him time to regain some of the energy he had lost.

"When they do open it, I'll toss one of these buttons through. The smoke will blind the Marlings. I'll try to slip through unseen. The rest of you stay here."

He ignored the murmurs of com-

plaint. This was a one-man job. He stretched himself full length on the shelf and began to wait.

CHAPTER IX

Escape

TWO Marlings came down the corridor. They were pushing a small

"May I be toasted," one of them grumbled, his antennae radiating the thought to his companion, "if I like this."

He nodded toward the containers on

the cart.

"Here we are on short rations. Little food and less water; two of our synthesizers broken down, the other two producing barely enough for us. But these miserable captives are to be supplied with plenty of food tablets and water while honest Marlings go hungry and thirsty."

"Ah, but you forget these captives are valuable. They must be in good physical condition when we return with them to our home planet, or they will be useless to our scientists. We

must feed them well,

"While we go hungry," the grumbler persisted.

"We will not be hungry long. Soon our plans will be complete. Then there will be food in great plenty. You may be sure that the members of this expedition will be well rewarded when we

return home."

The speaker smacked his lips.

"First, we must return to Earth," the grumbler continued, "and complete our work there. That may not be easy, now that these cursed Earthmen are aroused. I was present when those two captives were brought before Marl. They admitted they were completely bewildered by our raid, that they knew nothing of our presence here above them. But if they ever learn our location and how we operate—"

"They would be able to do nothing to stop us if they knew everything," the second interrupted. "Our next raid on their planet, when we join our companions who are there now, will be perfectly safe. They can never locate us even if they knew how to search. We could seize control of their leaders, force them to issue contradictory orders, and their teeming millions would never know that anything was wrong. Through their leaders, we could force their whole population to serve our will. Without even knowing it, they would be our slaves."

"True. True. I do not dispute your logic. But logic will not serve to fill

the hollow in my stomach."

I will raise the door."

The grumbler reached forward, lifted a white tablet from its container, popped it in his mouth. He swallowed it with every sign of satisfaction.

"You had better not let Marl learn of your action," he was warned. "He wants those captives well fed."

The grim tone of the radiated thought was not lost on the hungry grumbler. He changed the subject.
"Here we are at the entrance to their dungeon. If you will remove the bars,

ARK heard the sound of footsteps overhead. He raised himself on his feet, and crouching like a cat watching a canary, he waited for the door to open above him.

Around him men began to stir. "Be quiet," he whispered fiercely. "If my plan works, very shortly a Marling will drop through this door. Get him out of sight instantly. If I succed in getting to the corridor above, under no circumstances betray that I am gone. If the Marlings know how many of us are here, they will make a search for me. If they haven't counted us, and if I can get out."

Above him the door opened. The face of a Marling peered down at him.

Dark slanned his wrist against the

Dark slapped his wrist against the edge of the steel plate, crushing the buttons on his shirt sleeve against the metal.

The result was almost magical. As the air struck the acids concealed within the hollow buttons, a dense cloud of smoke billowed out from them. Some of the acid got to his flesh, hurt it like the sting of fifty wasps. But he had expected that and he knew the acid would cause no permanent injury.

Smoke swept downward in a heavy, constantly growing cloud. It puffed upward as if it were coming from the crater of a volcano. The billowing smoke struck the guards in the face, momentarily blinded them. Before they could drop the metal door, Dark had leaped. His head and shoulders were through the opening before the door fell, and before the confused Marlings could see what was happening, he had lifted the heavy door from his body and had wriggled through.

And into a cloud of smoke that blinded him as effectively as it had the guards. But even if he could not he could feel, and he had the advantage of surprise. His groping fingers touched a guard. The Marling was staggering backward, clawing at

his eyes.

Dark's fingers raced upward over the guard's body, settled with firm pressure at the base of his neck. The guard attempted to strike at him, and Dark swore softly to himself. If there had been a human in his grip, the pressure on that vital nerve center would have left him limp. But the Marling was not a man and his nerve centers were not located as they were in the human body.

Blinded, fighting wholly in the dark, the guard attempted to pull his weapon from its holster. The jarring impact of Dark's fist caught him on the point of the chin, a short sawage left jab that went home. The right followed viciously behind it.

The guard toppled to the floor.

Working with feverish intensity, Dark ran his fingers over the body of the unconscious Marling. He wanted one thing, wanted it desperately and quickly—the radio telepath. He slipped the close-fitting cap from the Marling's head, lifted the loop holding the transmitter from the shoulders.

It was the work of a second to slip the cap over his own head.

"What happened?" he heard the thought come pounding through. "Have the prisoners attempted to escape? Where did this cursed smoke come from? Are you hurt? Shall I call for help?"

"I am all right, except that I am blinded," Dark wailed.

"But the prisoners. Marl will have our heads if we let them escape!"

"One attempted to strike at me when I opened the door but I slammed it in his face. They cannot escape. I am standing on the door." Dark answered quickly, hoping the guards—he did not know how many there were—would not detect that an Earthman was using the telepath of one of their own kind.

He could have seized the weapon of the Marling he had knocked out, used it blindly in the smoke, and released his fellow captives. But there were thousands of well-armed Marlings on this globe, and fifty men would have had no chance against them. Instead of attempting a desperate sally that was doomed to failure, he chose to use stealth.

EVERYTHING depended on whether the Marlings would recognize his thoughts over the telepath. If they did, then he would have no choice except to use the weapon he had taken from the guard he had slugged, release the prisoners, and attempt to do as much damage as they could before they were destroyed.

Every sense alert, Dark listened to the thoughts of the Marling. He soon discovered there was only one. And just as quickly he realized that the Marling did not recognize that an Earthman was using the telepath.

Calling reassuringly to the alien, Dark went to work. Before the smoke had cleared he had changed clothes with the Marling, his own clothes and the stripped body of the alien had gone through the trap door.

He knew the guard would recognize him once the smoke had thinned. A careless thought would give him away instantly. And the smoke was thinning as the acids from which it emanated began to dissipate!

Dark kept his face averted, his head lowered, his fingers rubbing at his eyes. He wasn't acting. The smoke had almost blinded him too. Tears were running down his face. "These miserable prisoners;" the thought came through to him, "What did they do?"

"They must have tossed a smoke

bomb out. There was nothing in their prison that would burn."

"Impossible! We searched them carefully. Where would they get a smoke bomb?"

"Perhaps they made it. Fortunately none of them escaped. Can you see?"

"I am blinded. Are you sure none of them escaped?"

"Positive. I dropped the door instantly and stepped on it."

"That is good. Can you lower the food through to them? Or can we risk opening the door?"

Food! So that was why the guards were here.

"I think there is no danger," Dark answered. "Can you see at all?"

inswered. "Can you see at all?"
"I am almost completely blind. Will

it go away, do you think, or am I blinded permanently?"

"You will see again. My sight is coming back already. I will lower the food to these miserable wretches. Where is it?"

"On the cart. I cannot see it but it is shere somewhere. Ah! I touched it then. Here, I will shove it to you. Be very careful when you open the door. Those cursed prisoners might be waiting to spring at you."

"I will be careful," Dark promised. The cart rolled toward him through the rapidly thinning smoke. He glimpsed the cans. Tablets and water. Before he lowered them to the strangely docile prisoners, he popped two of the tablets into his mouth,

gulped at the water.
Unconsciously his radio telepath
must have radiated a sensation of

must have radiated a sensation of satisfaction.
"Are you eating again?" the guard

demanded. "You are being strangely quiet and the only thing that keeps you quiet is food." Dark hastily lowered the containers,

dropped the trap door with a heavy bang.

"Be sure and slide the bolts shut," the order came.

"I have already done so," Dark lied. He knew he was adding another chance to the almost overwhelming odds against him, but if he failed, the prisoners would at least have a chance to fight for their lives. He left the trap door unbolted.

To hide his face, he began rubbing at his eyes again. "Can you see?" he

asked cautiously.
"A little. Come. It is almost time for general orders concerning our next expedition!"

"What?" he radiated. Then he caught himself. "There is no need to hurry."

"We have little time to waste. The donbar will make us miserable if we

keep him waiting."

Donbar! What did the word mean? Next expedition . . . general orders. If he had to face unblinded Marlings in full light they would detect instantly that he was an impostor.

Stealthily he drew his weapon, held his finger on the button that operated it. If he had to, he would destroy this guard. He had to kill him instantly, for a radiated thought might alarm

all the Marlings.

Dark shielded his thinking. He did not fully understand the operation of the telepath. However, if it radiated all thoughts, it would give him away. The guard did not seem to notice that his companion had grown silent. Dark decided that the telepath radiated only the thoughts that the user wished to communicate. At any rate, he had to use it. Without it, he would be helpless.

Even with it, he would be detected if he appeared in the presence of many Marlings.

"Where," he thought carefully into the telepath, "is the equipment we took from the Earthlings?"

They were walking down the corridor.

"What difference does that make? Why do you ask such a question?"

Did the guard already know who he was? Had he sensed that his companion was an impostor? Dark did not know.

"I was wondering about that smoke bomb," he said. "Perhaps there are others among the equipment. If so, they would be handy things to have." His hand on his gun, he waited for

the answer.

"That is a good idea," the thought came. "The equipment is down this corridor, in a side room. Only I cannot see well enough to determine a smoke bomb from anything else."

Dark relaxed. The guard did not

"I can see," he answered. "I will look over the equipment."

"Very well. It is in there." The Marling turned, stopped before a metal door. There was an identifying insignia on the door. "Yes, this is

it," the Marling said, blinking at the insignia.
"Hurry," he said, as Dark opened

the door.
"In less than no time," Dark an-

swered.

Pen knives, pipes, watches, cigars,

packages of cigarettes, coins, bill folds, pencils, all the personal objects the Marlings had taken from the prisoners were piled together. His invisibility generator was there, his gun, the leather packs containing tiny tools, the make-up outfit.

The invisibility generator! If he destroyed this guard outside, he would be able to prowl at will among the Marlings!

He grabbed it, groaned. It was smashed beyond repair.

"Are you finding anything?" the thought came to him. "Can I help?" "Nothing." he answered. "I will be

with you in less than an instant."

If he could not use the invisibility

generator, there still remained the make-up kit. Dark opened it, got busy with swift fingers. Bits of wax went into his mouth, changing the contour of his face. A gob of wax gave him a nose that to an unsuspicious person would resemble the snout of the Marlings. He folded more wax, rolled it at the edges, so that it resembled the curve of their flopping ear, fitted it snuggly over his own ears. Paint deftly applied with the aid of a tiny mirror and a brush from the pack changed the shape of his eyes.

His kit of tools, his own gun, went

under his belt.

When he walked out of that room. he resembled a Marling sufficiently to pass muster-he hoped

"What did you find?" the guard inquired anxiously, still rubbing at his eves.

"Nothing," Dark answered, "There were no smoke bombs among that junk, or if there were, I could not find

"It does not matter, except that we have wasted much time," his companion grumbled. "We must hurry

Side by side, they walked down the corridor.

CHAPTER X

Ally of the Marlings

NROM every intersecting corridor Marlings began to appear. Dark stuck close to his companion, permitted him to take the lead. The Marlings were all moving in the same direction. The air vibrated with their conversation. Dark maintained a discreet silence, and listened.

"We have the head of their spaceship industry already," one said.

"Yes," another answered. their chief television expert as well. though what good he will do us I do not know. We have one metallurgist, two experts on atomic theory. They should be valuable. But we need others, many others. We need all the science these Earthmen possess-if we are to save our home world."

Save their home world! So some vast menace threatened them! they had made this trip across the void in an effort to overcome a threat at home. That much was clear. But what was the menace that threatened them? And why didn't they ask for help. It would have been gladly given. The Marlings were talking again.

"If our scientists should fail-after

we have come so far-" "They will not fail. With these men

from Earth they will be able to build the brain we need."

Dark kept quiet, listened, his heart pounding madly. The conversation shifted and he gathered that they were planning another raid on Earth.

How did they get to Earth? Marl had told him they wondered. did not possess space flight. How had they brought him and their other captives back to this circling sphere?

One thing was certain. If they were going to Earth, he was going with them, unless they discovered his identity. Once his story was flashed

all over the world-But first he had to get to Earth!

The corridor ended in a huge hall. The place was crammed with Marlings. Thousands of them! They were lining up in military formation. His companion hurried to his proper squad. Dark attempted to fall in line beside him.

"In the back row behind me!" the guard hissed. "Did that smoke addle your brain so much you have forgot-

ten where you belong?"
"Sorry." Dark slipped into the in-

had not fooled the officer.

dicated position. Standing in front of the squad, an

officer scowled at them. "What is the matter with your

face?" He was discovered! His make-up

"If you please, Donbar," his companion explained, "we were feeding the prisoners and they threw a smoke bomb at us. The smoke blackened our faces."

"Ah," the Donbar said. "So that is it. You two look as though you had been in a fight. Did the prisoners at-

tempt to escape?"

Sighing with relief, Dark let his companion do the explaining. The Donbar dismissed the matter as of little importance. Dark breathed easier. He watched the latter as he left the squad and walked to a group of technicians surrounding a table. A glimpse of the instruments on that table told him they formed a radio receiver. gathered, from the flashes of conversation among the technicians, that they were expecting a message.

A message from where?

Then the message came through-

in the voice of an Earthman!

"Calling Marlings . . . Calling Marl-

ings . . . Will pick you up soon . . . All in readiness for attack here . . . Complete your preparations at once

. . . That is all. . . .

Warped, distorted, blurred, but vaguely familiar in spite of the distortion, the voice came. The stunning incredible truth came to Dark like a flash of light. The Marlings had an ally! They were receiving assistance from human sources!

That was how they got to Earth from this globe up in the sky! They were shuttled back and forth in a

ship from Earth.

But who was the traitor who was using the Marlings to attack his own people? Dark ground his teeth in helpless rage. That voice-it had sounded vaguely familiar. He had heard it before, somewhere.

HEN, somewhere a Marling grumbled.

"These Europeans-it is unfortunate that we have to aid them in re-

turn for their assistance."

"Otherwise we would never get to Earth," another said. "We were fortunate that they discovered us here in the sky. If those savage Americans had discovered us. . . ."

In those two sentences Dark saw the whole scope of the attack that was being launched. The Europeans had discovered this Marling satellite. Instantly they had seen a chance to launch a new attack against America. They had combined forces with the Marlings, and the Americas were facing two menaces instead of one.

Europeans had contrived to have the Marlings erect that hidden radio transmitter on Earth, from which the warning broadcast had gone out the night the Flaming Death first appeared, knowing that if they could create a panic in America, Europe would have time to gather enough ships to strike a decisive blow against her disorganized opponent.

Flaming death would strike among the citizens of America, among her soldiers and her fliers, as the Marlings, securing their own loot for their own purpose, reduced thousands to microscopic size. And while fright and panic were doing their deadly work, from the sky would sweep a hastily assembled fleet of rocket ships-and bombs and gas would rain upon the millions trying to flee from the death that struck in flame. And the war that had been fought only five years in the past would have been fought in vain.

The dictatorship of James Harkor would surge to life again. Recalling that war, recalling the man he had fought during the conflict, and remembering the vaguely familiar voice that he had just heard echo from the speaker of the Marling radio. Dark began to wonder if the dead had come to life. Harkor was dead. There was no doubt about that. But Dunning, the arch spy of the European Coalition! Had he really died? Or had the reports of his death been faked?

Had the voice that had come from the Marling radio been the voice of Basil Dunning, the man with a thousand faces? Was he planning to resurrect the dictatorship of which he had

been second-in-command?

Dark could not be certain. The voice had been blurred, indistinct. It might have been the voice of a dead man. And it might have been someone else.

COMMAND flashed through the chamber. The Marlings snapped to attention. Another command lashed out. The ranks began to move.

Dark, in the rear rank, tried to keep step and obey the commands. Following the Marling ahead of him, he uttered a silent prayer of gratitude that the guard he had slugged and whose place he had taken had come from the rear rank.

They were marched to an armory, but instead of being given guns, they were given space suits, ordered to don them. The helmets on the space suits were equipped with antennae. would have to remove the close-fitting cap which not only held his own antennae but concealed his hair, that meant more risk, for the Marlings were bald, hairless.

It was another desperate chance. He waited until no one was looking, yanked off his cap, and stuck his head into the helmet of the space suit. He didn't begin to breathe until the whole suit covered him.

Another hurdle passed. He was in the suit. Safe for the moment.

But how long would he be safe?

The columns reformed. The order to march was given. Up through metal corridors the tramp of many feet resounded.

The Marlings were on the march. And an Earthman marched with them! They came to a lock, passed through

it, and Dark saw why they had donned space suits. They were going to the airless surface of their world.

To the right and the left, after they had passed the lock, bomed thousands of steel projectiles. They stretched out in rows for several miles—miles, that is, relatively speaking. Each was pointed. Aside from a dark opening near the end of each projectile, they were utterly blank and apparently solid

Huge things. Thick and heavy. Dark did not know what they were, and he did not dare ask. The marching columns broke into squads and each squad started toward the opening that vawned in the steel cylinders.

In the sky above Dark caught a glimpse of something that almost took his breath away. A space ship! The biggest space ship he had ever seen! It seemed gargantuan in size.

No such ship had ever been built on Earth. It would have taken more steel than the combined foundries of Earth could produce. Where had it come from?

Then Dark remembered how big he was and realized that the ship was probably a small flier. But to him it seemed almost as large as the Earth. It was coming closer, slowing, coming to a halt, there in the void.

Then his squad marched into the opening in the cylinder and his vision outside the ship was shut off. Dark looked automatically for a door to close the opening they had passed. There was no door.

The donbar used a tiny instrument that produced an intense light. The inside of the cylinder stood revealed, and Dark observed a chamber that looked like a tank designed for underwater service. Thick windows and heavy treads for crawling.

The donbar opened a door in the tank and the squad marched in. He closed it.

Closed I

"Open your helmets," he ordered.
"And make yourself secure. We are about to start for Earth!"

The donbar opened a valve, releasing compressed air into the tank. He pushed a button and the lights came on. The Marlings seized handholds, braced themselves against the walls of the tank. They were tense. Their almost expressionless faces showed traces of fear.

Suddenly not only the tank but the projectile in which it was firmly held began to move. With a wrench that almost tore his arms out of their sockets, it jumped straight up. Dark's fingers slipped from the bar to which he was holding. He plunged across the tank, struck the wall with a jarring thud, and grabbed desperately for another hold. His fingers found a metal bar, closed around it with an iron grip. There was a heavy jar as the projectile struck something.

Dark got a glimpse through a port of the tank and through the opening in the projectile. The world of the Marlings was already far below him and was receding farther all the time. All of those thousands of projectiles that had been lined up on the plain were gone. They had been drawn up-

There was a sensation of sickening movement, a swinging oscillation. The movement suddenly ceased. From afar came a blasting thunder, a sound that Dark recognized. The regular discharge of rockets!

They were in the space ship. They were started on their journey

They were started on their journey to Earth!

THE Marlings relaxed. He caught sensations of relief coming from them.

"Ah, I'm glad that's over."

"Yes, certainly, the most dangerous part of the trip is when the magnet picks up these devices our ally brought

from Earth. It is most upsetting to know you are going to jump through nothingness. I personally, think Marl should have insisted that our entire world be taken to the planet."

Magnets! Had the space ship lowered an electro-magnet on the end of a cable and lifted those projectiles, with the tanks inside them, into the

ship itself?

What were those pointed projectiles that had been brought from Earth? Were they-God, he had ithypodermic needles! In a flash Dark saw what the projectiles were and how the Marlings operated. Hypodermic needles had only one meaning!

Men in league with the Marlings used those hypodermic needles. prick of the flesh and the tank slid through the opening in the end of the needle and into the body of a selected victim. Inside the victim the tank was opened, the Marlings released into the bloodstream, more vicious than any germ already inside the body. There they could either control the victim's actions or reduce him in size. . .

"What are you saying?" The donbar looked suspiciously at Dark.

He shielded his thinking. "I too, feel that it would have been wiser to have taken our whole world to Earth." he said quickly.

"You are not required to do any planning," the donbar curtly snapped. "Your job is to obey orders!"

"Of course," Dark apologized, "You will find me ready to obey all commands given me. I merely felt that other arrangements could have been made."

"It might interest you to know," the donbar answered, "that the arrangements you suggest were considered. But our Earth ally, although he denies it, is greatly afraid of us. He claims we are safer with our base where no one would ever look for itin the sky. In reality he is afraid to take us to Earth because he fears we might gain control of him. Also, we wanted him to teach us how to build space ships. He agreed, but in return demanded we explain to him our process of reducing objects to microscopic size. We suspected he was trying to trick us. After he had secured our reduction process, he would either leave us stranded in the sky, or he would destroy us. Consequently we refused to give him our secret until he had taught us how to build space ships, and he was afraid, if he taught us how to build fliers, that we would not need him any more."

The donbar laughed, "He was quite right. We would have tricked him if we could, just as he would have tricked us."

This was news. The Marlings and their ally did not trust each other. Each would betray the other if the op-

portunity offered.

Dark studied his surroundings. The heart of the reduction machine occupied the entire front section of the While the donbar tested it, Dark studied its operation. The donbar pushed a series of buttons. A concealed generator growled, vague lights bloomed in five heavy tubes. Meters leaped to life on illuminated dials, registering the surge and beat of unknown tensions. Heavily insulated leads ran upward, went through the walls of the tank in a black panel that looked like an insulating plastic.

How did the Marlings shield themselves from the effect of the frequencies they generated? How did they operate the machine so that it reduced the clothing of the victim and personal objects such as pens and pencils?

The donbar was almost constantly in touch by radio with other groups in other tanks. The telepath, apparently, did not have enough power for long distance communication.

The trip seemed to last forever. But finally the driving charges, after sudden violent hammering as the ship

eased to a landing, were silent. They were on Earth!

CHAPTER XI The Fight in the Tank

AM'S place, in a narrow street just outside Berthoud's Field, was usually jammed with sailors, especially when the fleet was in. The rocket men came there to drink beer and to brag to each other about the merits of their respective ships.

The space fleet was in, too, sleek grevhounds of space rested in their cradles inside Berthoud's Field.

their noses angling upward.

The foaming tankards of beer should have been flowing across the bar in Sam's place, and Sam himself should have been behind the bar, beaming at his customers, his smile growing wider each time the cash register tinkled.

But the tankards were not moving across the bar and Sam was not beaming. There were only seven sailors in the place and the cash register tinkled very rarely. Sam himself was behind the bar.

His bartenders had all quit. Sam was only staying long enough

to dispose of his stock.

A week before-two days after the first wave of flaming deaths had swept over Chicago-a stranger had staggered into Sam's Place. He had muttered something, and then had explod-

ed in blazing flame.

The bartenders were already jittery. It wasn't their business; they didn't own the tavern. They went away. Bartenders were needed in New Orleans and San Francisco and Los Angeles, they said. A man could always tend bar.

The rocket men were a hardier breed. Even flaming death could not

keep them from their beer.

The door opened. Bill Jurgens, gunner's mate from the rocket ship, Minnesota, came barging in. nodded at the gray-clad sailors at the

"Beer, Sam," Jurgens demanded. He got his beer. When he left an hour later he had a slight list to port.

He began singing as he headed for Berthoud Field.

He never got there.

A half block from Sam's Place a man came staggering toward him. The fellow was in the gray uniform of a rocket man, and judging by the way he staggered, he was much the worse for beer. He was trying to sail a straight course but he wasn't having much luck. He was on the port tack when a lamp-post obstructed his way. He careened from it into the wall of a building and then fell flat on his

To Bill Jurgens the stranger looked like a rocket man who was on a bender and in need of help. Rocket men stuck together. Bill helped the stran-

ger to his feet.

Bill never saw what the stranger had in his hand. He never got a glimpse of the hypodermic needle. Even when the man's arms went around him, and the hypodermic needle was jabbed into his back, Bill never knew what had happened. The point of the needle was smeared with a powerful local anesthetic and Jurgens didn't feel the needle as it entered his body.

"Sorry," the stranger muttered. "Sorry. . . ."

He went weaving off down the street.

Bill Jurgens went in the other direction. As he walked there came a flash of pain in his back. Bill jumped. "What the hell?" he thought.

He twisted his neck around, tried to see what had struck him in the back. He saw nothing. He could feel nothing in his fingers. But the pain came again, sharper, fiercer,

Some hidden, vicious force seemed to clamp down over him, paralyzing him, taking over his body, destroying his will. His legs grew heavy. Wild thoughts flashed through his mind.

The maddest fear he had ever known swept over him. His only thought was to run, and run, and run, but his legs were heavy and they would not obey his will. He began to stagger. Sweat poured from him. He was dimly conscious there was a conflict going on within him. Two forces seemed to be fighting over him. The mad fear that swept over him grew into a panic.

ROM the tank the donbar's command lashed out.

"Make direct connections to those white cables."

Three Marlings were outside the

tank. John Dark was the fourth. After they had landed on Earth he had been constantly alert for an opportunity to escape. None had come. The tank had been shifted near the opening in the needle and the donbar had maintained constant communication with other groups of Marlings. After hours of twisting and turnings, bumpings and joltings, the command had flashed from the donbar to release the tank.

It had surged outward-into the bloodstream of an Earthman!

Now it was attached to a thick bundle of heavy, white cords. Under the gleaming lights of the Marlings the cords looked like huge ropes, white and fibrous. Around the entire bundle was a protective sheath, but the microscopic tank had pierced through that with ease.

The Marlings lugged a heavy box from the tank. From it a sheath of insulated cables ran. Under the direction of the donbar they began to attach the cables to the white, fibrous

They worked swiftly, efficiently. Dark had no choice except to help them. From the size and apparent location of those cords, he suspected what they were doing.

They were working in the spinal column of an Earthman. They were making connections to the nerve fibers that controlled the actions of the body. What the victim was doing now, there was no way to know.

The slimy fluid that filled the interstices between the fibers, that bathed the sheath of nerves, did not change in any way. It flowed around the Marlings and covered them with its sticky wetness. But they worked through it, their space suits serving as adequate diving equipment, the heady fumes of oxygen rising from the tanks on their backs. They finished the connections from the nerve fibers to the box.

Down through the watery fluid a gigantic mass came floating. It extended white pseudopods toward them. There was a vague resemblance to a gigantic white octopus.

"Back to the tank," the donbar or-

.

They slipped into the lock, closed it behind them. Air pressure forced the fluid out and they entered the tank.

The donbar paid them no attention. Dark glanced from the port. The white creature was still floating around outside. He ignored it, opened his helmet.

An exclamation of satisfaction

came from the donbar.
"Our remote control system is func-

tioning perfectly. I have just tested it!"

"Remote control?" Dark asked.

"Certainly. The equipment which you attached to those white cords will serve to convey our orders directly to the Earthman to which it is attached. By using it we can paralyze his nervous system and take full and complete control of his body."

"Then you—we aren't going to reduce him?" Dark caught himself just

in time.

"If we were going to reduce him we would not leave our tank," the donbar snapped. "According to the information I have received from the crew that put us into contact with him, he is a member of the fighting force of the space fleet of Earth. At the proper time we will seize control of him, and many others in the same force."

"Yes, yes, of course," Dark answered shielding his thoughts

swered, shielding his thoughts. So the Marlings were seizing con-

trol of men from the space fleet! That could have only one meaning. They were planning to destroy the fleet!

Dark began to sweat. It was hot and stifling in the close quarters of the tank, and the information he had just received seemed to make it hotter. If the Marlings were aiming at the destruction of the fleet, he had to get a warning through to Earth.

The sweat poured from him in floods. And the heat and the salty sweat began to loosen the wax nose he had affixed to his face in imitation of the proboscis of the Marlings. He never realized what was happening, until, in response to a command from the donbar, he bent over.

The wax nose dropped from his face. With a soft plop, it landed on

the floor of the tank, right at the feet of the donbar.

For a second the officer stared at the blob of wax on the floor. Then his eyes jerked up to Dark's face.

"You're not a Marling!" the donbar hissed. "You're an Earthman!"

The surprise that glowed in his eyes was a living light. The donbar went for his gun.

HE blob of wax had hardly touched the floor when Dark's hand went streaking for his weapon. He beat the donbar by such a margin there was no comparison, pushed the trigger button all the way down.

The surprise that glowed in the donbar's eyes was a light that failed as the weapon in Dark's hand hummed. The face of the donbar seemed to melt and run, as if it, too, were made

of way. The donbar toppled to the floor of

the tank, dead.

Dark turned his weapon on the

others.

"Take this! And this!" he howled. Long pent-up fury was a mad flood coursing through his veins. The weapon in his hand hummed and hummed and hummed again. Blackface, the guard whom he had duped at the trapdoor in the Marling satellite that was now so far away, was the second Marling to go. He slumped downward, smoke curling from his chest. Another slid to the floor beside him.

That left four. The odds were evening!

Surprise fought on Dark's side. He got another Marling before they fully realized what was happening.

That left three. They slid to cover. One of them dropped behind the radio equipment at the far end of the tank and his weapon came poking up. It melted before a blast from Dark's gun, melted in the hand of the Marling who was using it.

Two to go. The one behind the radio wasn't dead, but he didn't have a gun. The other two were safely out of sight behind the motors at the rear.

"Come out of there!" Dark yelled, forgetting that the visor of his helmet was now closed and that they not only couldn't hear him but probably could not have understood him if they did hear him. He wasn't using the telepath. He was screaming at the top of his voice.

His gun covered the top of the motors. The odds were still two to one against him, but those two were under cover and could not shoot at him without exposing themselves.

If both of them should choose to rise at the same time, he would not have a chance against them. He could get one of them but by that time the second one would get him, If he tried to attack them, they would mow him down as he came. Dark stood still, his back to the lock, holding his gun steady, its beam blazing across the top of the motors.

If he could destroy or capture the two remaining Marlings, the odds against him were still almost overwhelming. He would have to force the tank to the surface of the body in which it was housed, force it out, and then use the equipment it contained to regain his own normal size. Otherwise, even if he destroyed the Marlings, he would be a microscopic midge in a world of giants.

The Marlings did not come out from behind the motors. They came

around them.

Dark saw the first one poke a gun out around the base of the motors. His own weapon flamed downward. The gun was jerked back. But from the other end of the motor, a beam of fire lanced.

Not at him! At the reduction machine.

The beam bored straight into that mass of coils and tubes. A fluttering flash of white-hot sparks leaped out as the beam seared through insulation.

The Marlings knew what he was planning. He had forgotten to shield his thoughts and the telepath had betrayed him. At any cost they were trying to prevent him from using that machine.

His gun hummed. The weapon boring into the machine was jerked back. He caught a flash of pain from the telepath of the Marling who had wielded it.

He took one look at the reduction equipment. His heart sank. It was ruined!

"Now what are you going to do, Earthman?" he caught the flash of a jeering thought from the two hidden Marlings.

His eyes jerked back to the motors just in time to see two antennae beginning to rise. Both the Marlings were coming up at the same time.

CHAPTER XII

Lost

MARK'S reaction was split-second.
He spun on his heel, kicked open
the door behind him, leaped through
it. As it swung shut, the beams from
the Marling weapons seared into its
steel surface. He glanced through the
heavy glass of the port. Both the
heavy glass of the port. Both the
motors. One of them was hastily using the radio. The other was focusing
his weapon on the glass porthole of
the inner door of the lock.

And the glass was beginning to

melt.

Dark was trapped. Inside the tank certain death was waiting for him. In less than seconds the Marling would burn the glass out of the door of the lock. Outside the tank—

Dark took a deep breath. His only chance for escape was—outside—the tank. He spun the valves releasing the air pressure inside the lock, shoved open the outer door. A sticky fluid

oozed inward.

He dived headfirst from the tank, into the sticky fluid, into the wall of darkness that rose upward away from the lights flaring through the portholes of the tank. In the last glimpse he had of the tank, before darkness rose all around him, he saw that both of the Marlings were following him.

He was a microscopic midge lost in the body stream of a man he was trying to save. Two other microscopic midges were hunting him.

The force of gravity was a slug-

gish pull downward. There was little motion in the fluid in which he was immersed. Dark was lost in a wilderness of sticky fibers. He shoved his way through them, oblivious of direction. Under the pressure of his hands, enclosed in the clumsy gloves of his space suit, the fibers pulsed with strange throbbings. They were ropy things and he slid through and around them, moving in total darkness.

There was a tiny light attached to the belt of his suit, and other equipment, but he did not dare use it until he was certain that the Marlings would not see him. He caught one glimpse of their lights behind him. He slid into a crevice, slipped through it. He eased through the fibrous sheath surrounding the spinal column, swam forward until he felt an obstruction above him.

"I wonder," he said to himself. "If

this is a vertebra--"

He moved along it, feeling his way. A wide crevice yawned before him, a crevice filled with a cushioning fluid. He slid into that crevice, forced his way through it. He was so small he could move between the vertebra

without touching them.

In less desperate circumstances, he would have welcomed the opportunity to take advantage of the marvelous chance for discovery the Marling reduction process had given him. He could do things that no surgeon had ever been able to do, observe the actual operation of the human body, the bewildering complexity of nerve and muscle action, the operation of the glands, the functioning of the ductless system.

Dark had no time for study. He had to get out. Once out, he had to devise some method of communicating with his fellows.

And getting out, he suspected, was going to take some doing.

He did not know in which direction he was moving. There was no way to know. Even when he dared to use his light, he could not tell in which direction to turn. Above him the light showed a dark mass. Below him was another mass. They were moving up and down, cushioned on the fluid between them. Dark floated in that fluid.

E swam forward. Was he moving toward the skin or was he moving toward the center of the body?

He came to the end of the crevice. Twisting coils of muscle fibers loomed around him. Under his light the fibers showed as reddish ropes. Spasmodically they contracted, then lengthened, a silent writing motion like the undulating bodies of giant serpents.

Dark slid between them. They, too, were surrounded by and floated in that colorless, sticky fluid. He wondered about the absence of blood. Then he realized he was in the pale lymph that flows through the entire body and that the blood was confined to the veins and arteries, feeding muscle and bone alike through a tremendous network of branching canals.

The muscles contracted and he was squeezed within a giant vise. For a moment he was held so tightly he could not move. Then the muscle relaxed. He moved quickly between the fibers. They were gigantic things. Even the smallest of them was many times thicker than his body. But they were soft. The thin membrane that connected them broke at his touch, healed itself when he was through.

Far-off, lost in the infinite distance, he vaguely heard a rhythmic pounding. The sound came through his helmet. He listened. It was the strangest condition under which he had ever listened to the beating of a human heart!

There was another sound! Dark's pulse leaped when he heard it. It was a gurgling swishing of the lymphatic fluid!

He darted his light around him. Out of the darkness there loomed a gigantic formless mass, a white, doughlike creature. It extended a pseudopode toward him and he recognized it.

A leucocyte! A white-blood corpuscle. One of the warrior corpuscles of the body. His first thought was one of gratitude. Here was a creature that fought on the side of the human race, here was a friend of man. By extension here was a friend of his, for he, too, fought on the side of man. Then he realized that to the leucocyte he was an enemy, an alien creature present in the human body, and therefore a creature to be gobbled up, destroyed.

Gulping, wallowing, extending pseudopodia, the leucocyte moved toward him. He drew away from it. He had the advantage in that he could see and it couldn't. It seemed to progress solely by touch, but in some uncanny manner it sensed his movements—probably by vibrations in the

fluid-and followed him.

He lifted the Marling weapon from its holster. Whether it would work in the sticky fluid, he did not know, but he did not want to take that chance unless he had to. He drew back. The leucocyte followed. He slid around the ropes of muscles, dodged in and out. Gulping like a dog that has lost the scent, the leucocyte wallowed off into the darkness. There would be others, he knew.

Those pale-white, ghastly creatures existed by the millions in the human body. They remained largely in the blood stream, for there was where they found most of their enemies—and their food supply—but they penetrated every section of the body, in a restless, never-ending watch for the foes within, passing through the walls of the capillary and into the lymph, searching, always searching for enemies.

Dark was not certain that they could harm him. They would enfold him if they had the chance. He wondered whether the space suit would protect him. He remembered enough of his biology to recall that the leucocytes exuded a digestive acid after enveloping their victim, and he doubted that even his space suit would be proof against a concentration of this acid.

He moved forward. There was one way out of the body—the blood stream. He might fight his way forever through a maze of muscle and nerve fibers, and never get anywhere. But the blood stream, while it might carry him deeper within the body, would sooner or later carry him near the surface.

THE leucocytes would swarm in the blood stream. There might be other enemies. Very certainly there was danger. But there was greater danger in just standing still, in groping aimlessly. He was lost in the body of some man, as badly lost as ever an explorer lost in the denseness of the tropic jungle. In fact, he was lost in the weirdest jungle ever created by Mother Nature—the human body.

He found something that resembled a huge rubber tunnel. It was throbbing, pulsing with the beat of a regular current flowing inside.

À vein! Or was it an artery? If he entered it would it carry him toward the heart or away from it? He tried to determine whether it was a vein or an artery by determining the nature of the pulse. The pulse in a vein was slower, more even, the beat of the heart was not so pronounced. In an artery the pulse was a spurt, a driving, pounding, hammering. The blood in a vein was a slightly different color than the blood in an artery.

The pulse in this vessel was pounding heavily. He could not determine the color of the blood without entering the blood vessel. Judging from the pounding, the vessel was an artery.

Dark slipped along it, looking for a branching blood vessel. He tried to force his way through the wall but it was as tough and as resilient as rubber. The fibers that made up the wall were close together. He would have to find a capillary. It was through the capillaries, by osmotic pressure, that the food carried in the blood got to the muscle engines that used it. The leucocytes squirmed through the capillary walls. Therefore he could get through a capillary wall.

Behind him, somewhere in the vast darkness, he caught the flash of thoughts.

"Did he go this way?"

"I do not know. But we must find

him. If we permit him to escape, we are doomed."

The Marlings! They were still following him.

He swam along the blood vessel It branched. He forced his way forward through the sticky lymph. A leucocyte came behind him. He dodged it. He fought his way along, following the labyrinthile tunnel that stretched through the wilderness of muscle fibers. Behind him he caught the swirl of alien thinking. The Marlings again. He listened.

They seemed anxious. One asked the other how much oxygen was in the tanks of the space suits they wore.

Oxygen! It was bubbling into his helmet in a life-giving stream. In the press of events he had forgotten that there might be a limit to the supply. He listened for the reply of the Mar-

ling. It did not come.
"One of those cursed beasts!" he heard the exclamation. "Ah! That

fixed him."

The Marlings must have encountered a leucocyte, he decided. They

had destroyed it.
"But the oxygen?" the query came

"There is enough for four yals," the answer came, in a rather anxious tone. "Only four yals? Do you think we have enough to return to the tank?"

Dark waited for the answer. He did not know how long a yal was. It was a Marling time measurement which he had never heard used before. It might mean an hour, or two hours. Or it might mean ten minutes,

OW long was a minute now that he was of microscopic size? Did time progress at the same rate for a microbe that it did for a human being? Or did time flow faster, at a vastly increased speed, in the microscopic world?

If we do not find that Earthling,"
the second Marling answered, "we
might as well never return to the tank.
We might as well die because of lack
of oxygen as die the way we will have
to if we return and advise the other
crews—and Marl—that a disguised
Earthling came to Earth with us, and

escaped."

"How long is a yal?" Dark almost shrieked, but checked himself. There was no point in giving himself away to

the Marlings.

Another thought struck him. The Marlings were away from the tank. He might return, lock himself in it, and use it to force his way to the surface. He dismissed the idea, however. The conversation of the Marlings might be a trap. They might be waiting for him back at the tank, trying to lure him to return.

Dark forced his way along the blood vessel. It forked, and branched again, getting smaller each time. It spread out into a vast network of branching tubes that twined their way through a veritable forest of muscles fibers.

Here he found capillaries. Through their thin walls he could see the red blood cells bobbing along inside. The wall of the capillary tore easily. A few red blood cells rushed out. He slipped inside and the opening scaled itself behind him, the lymph flowing almost instantly into the opening he had made.

The throb of the beating heart was stronger in the blood vessel. Red blood cells clustered everywhere, bobbing along in the distinct current flowing in

the tube.

Even though he was near the end of the vessel, it was large enough for him to stand erect. He moved forward, now walking, slipping over the rubbery surface, now swimming. Over his shoulder, coming from behind him, he caught a glimpse of a grim white mass. A leucocyte! He scrambled out of its reach, swimming with desperate strokes. It wiggled behind him, extending gulping pseudopods. He outdistanced it.

The tube joined another tube. Here the current was stronger. It moved in a resistless, surging, tide. It swept him from his feet, carried him along. Ahead of him the beat of the heart sounded louder. It worried him. Was he heading toward that mealstrom of pounding life, where fierce currents met and meshed?

He examined the red blood cells bobbing along in the current with him. They looked as if they were deflated. They had a distinct purplish tinge.
Purple! The color of the blood in

the veins.

He was in a vein. He was heading toward the heart! And the pulsing flood of thin watery liquid in which he was being borne was flowing with the wrath of a Niagara.

CHAPTER XIII

The Gigantic Heart

THE surging, seething current in which Dark was being swept along was alive with organisms. Single redblood cells, clusters of them, Red-blood cells by the thousands. Above him, below him, all around him. Other organisms that he could not name. A barrelshaped creature, paddling frantically with hairlike arms, scuttled past him, a leucocyte in hot pursuit. It dodged around the red-blood cells and another leucocyte appeared out of nowhere and grabbed it. Hairlike arms flailed madly at the white blood corpuscle. Another leucocyte appeared and then another and another. They hurried to the scene like relentless hounds. They clustered around the barrel-shaped creature. It ceased wiggling and the mass went floating off.

Other battles were going on. Thin, narrow bacteria wiggled by. For every recognizable bacteria there seemed to

be at least two leucocytes.

Dark's vision suddenly became obscured. Something had settled down over the visor of his helmet. He thrust at it, felt a soft, doughy mass wiggle under his groping fingers.

A leucocyte! It had come up behind him, had recognized him as an allen organism in the bloodstream, and was trying to destroy him. The heavy armor of the space suit baffled it. Dark kicked at it, struck at it with one hand. In the other hand he held the light. He pushed the doughy mass from his visor, saw instantly that he was almost surrounded by the creatures.

He jerked his gun from its holster. His first thought was to send a blasting beam into these creatures, but he remembered in time that he was in the body of man. A blast from that weapon might sear through the walls of the vein in which he was being carried,

cause a hemorrhage.

He pushed the button down to the first notch. He knew, from grim experience in the audience chamber of the Marlings, that when the weapon was used with weakened power, the resulting radiation caused intense pain but not death.

The beam faltered for a second. Dark's heart almost failed him when the weapon refused to function. Then the beam lashed out. The leucocytes wiggled convulsively. They drew back. He turned the gun behind him, aiming it over his shoulder.

The leucocytes retreated. But they did not go away. They hung around, just outside the range of the weapon, like dogs temporarily held at bay.

"Okay, boys," Dark said grimly.
"You leave me alone and I'll leave you alone. I've got enough troubles without you butting in and giving me more."

He saw they weren't going to leave him alone. They were coming from all directions. As he was swept down the voin at constantly gathering speed, they dropped down from the walls of the blood vessel to which they clung, and followed him. He gripped his gun tightly in one hand, held them at bay with it. They writhed away from the stinging beam, but when be turned it in one direction, they surged toward him from all other directions. They were closing in on him.

And ahead, coming nearer all the time as he was swept along, the thunder of the maelstrom echoed. Death rode with him, death closed in all around him, and ahead of him death

growled and thundered.

To a creature as small as he was, the vast surging currents of the human heart could only mean death. True, the leucocytes were but little larger than he was, but they were adapted to the environment, and he was not. Then the vein poured its rushing flood into the heart. The surging current caught him, flung him upward.

Dark smashed into a wall of muscle.

It contracted and struck downward with the fury of a trip-hammer. Through the heavy helmet he felt the blow. Bright lights flashed before his eyes. Stunned, he was thrown downward and to the side, riding a rushing flood of water, floundering among the red-blood cells.

There was no noticeable interval between the beats of the heart. It maintained a frantic pounding. One beat followed another so quickly he could not tell where one stopped and another be-

gan

BEATEN, battered, thrown from wall to wall, riding madily surging currents, he almost lost consciousness. He would have been an easy prey for the leucocytes. But they could not attack him in the wild currents. As quickly as a pseudopod attached itself to him, the turbulent torrent tore it loose.

Over the thundering of the heart came a new sound, like the opening and closing of gigantic valves. The valves flapped like gigantic fins beating the

water.

Then Dark realized that the fins were beating behind him. The current in which he was riding was no longer threshing. It was flowing smoothly, steadily, with renewed energy, and with a driving purpose there was no mistaking.

Dark reviewed his memory of human physiology. He must now be out of the heart, he surmised. He had passed through the right ventricle and was moving toward the lungs. He permitted the current to bear him along. The Marlings, whatever else they might be, were efficient workmen. They built space suits that could be used as diving suits, and they built them well.

He rested, quieting the mad beating of his own heart. It shocked him to realize that the situation in which he found himself was being repeated in his own body on a microscopic scale. Or perhaps his own heart was almost sub-microscopic in size. But is was repeating, in exact detail, the actions of the other heart through which he had just passed.

Momentarily, he was safe, except

for those leucocytes. They had forgotten all about him-if they had memories at all -in the surging currents of the heart. But at any moment they might again detect his presence, and even if they did not remember him. they would know he was an alien and their instincts would tell them what to

One of the creatures floated above him. Automatically a pseudopod came down toward him. Dark didn't want to kill it. He didn't want to use his gun unless he had no choice.

He wiggled away. It followed. He slid behind a red-blood cell.

The leucocyte seemed to forget all

about him.

"Well!" he said to himself. "Well!" He slipped into the center of a cluster of red-blood cells. They quivered when he touched them but did not attempt to harm him. They were not fighters. Their duty was to carry food and oxygen to the tissues, to carry away waste products. Dark hid in the cluster and the leucocytes ignored him. To the leucocytes the red-blood cells were not enemies, not creatures to be attacked and destroyed.

A sound caught his ear. It rose above the thundering of the heart behind him. It was a dim, distant droning. It rose and fell and cut off sharply.

The human voice. The man in whose body he was concealed was talking.

The sound was so indistinct and so muffled by the layers of tissue between the larynx where it originated and Dark that he could not tell what the man was

saying. If he could only communicate with

the man! But how?

He thought about the telepath. He knew the Marlings used it to communicate with each other when they were in the blood stream. Could he use it to communicate with his host? Could he, by concentrating all his mental strength, reach the mind of the man even though that man was not wearing a telepath? The range of the telepath was short, but, measured by Earth standards, the distance it had to cross was small and perhaps the fact that it was immersed in the same bloodstream that fed the brain might make it more effective by providing almost direct contact.

THE only way to find out was to L try.

He concentrated his thoughts. "John Dark calling . . . John Dark calling . . . Can you understand me?

. . . Can you understand me? . . ." He listened. There was silence.

Then something that resembled a screech came from above. But no distinguishable words.

Had the man understood? Had the thoughts originating within his own body impinged on the nervous centers of his brain with sufficient force to be effective?

"John Dark calling . . . John Dark . . Help . . . Help . . . I am in your body . . . I am in your body . . . Help ... Help ... This is John Dark ... John Dark. . . ."

A weird, incredible call for help rising like a prayer from a man in desperate need of assistance. A human being trying to reach out in a moment of indescribable need to another human being, calling for help. Dark listened again. Far in the distance he caught echoes of a gibbering screech.

He tried again. He told who he was, where he was, and how he had got there. He told the story of the Marlings, tried to give the position of the menacing satellite circling over Earth, explained how the Marlings operated.

Get word to the President . . . Get word to the President . . . Advise him that in all probability an attack from Europe is imminent . . . Tell him that the fleet is in grave danger. . . .'

Whether his host heard him or did not hear him he could not tell. sounds that filtered through to him were meaningless and had little resemblance to articulate speech.

But something else heard him, In the slowing current, coming from behind him, he caught the flash of lights.

The Marlings! They had not given up the chase. They, too, had entered the blood stream!

"I heard him calling," one of them said. "He is near."

"Be ready . . . Curse those white blobs. . . ."

When he had hidden in the cluster of red-blood cells, Dark had turned out his light. The Marlings could not see him but he could see them. They were coming slowly down the slowing blood stream, ruthlessly beaming down the leucocytes that constantly attacked them. It seemed to Dark that each time the beam flashed out, he heard wild screeching sounds coming from somewhere above him.

Dark lifted his weapon, waited. Around him the blood stream was slowing. The artery was branching. He was very near the lungs. The cluster of cells in which he was hiding was threatening to break up under the pull of diverse currents flowing into the branching arteries.

The Marlings were very near. At any second the cell cluster might

break up and reveal his hiding place. It was now or never.

He got the first Marling dead center. But before he could swing to the second one, the Marling had doused his light, leaving the whole artery in blackness.

It was a fight in complete darkness. After his first blast, Dark held his fire. A scurrying movement came from his left. He pointed his gun in that di-

rection, waited.

The Marling's nerves must have failed him. He started firing blindly, holding his weapon at maximum blast and swinging it in a circle around him. Dark blasted him.

It was easy. It was too easy. He wondered. What had upset the Marling? Why had he revealed himself, knowing the odds were that he would be beamed?

Dark felt a little giddy. Then he realized the cause of that giddy feeling and knew in a flash why the Marling had seemingly gone mad.

The Marling's oxygen supply had failed. He had tried to destroy his

enemy before he died.

And Dark's supply was failing, too. The heady fumes were no longer bubbling gently into his helmet. They were coming slowly, gurgling like water from a jug that is almost empty.

CHAPTER XIV

The Voices of Giants

WAS this the end of the trail? Had he fought his way against incredible hazards only to die at the end like a rat in a trap? Would the body of another man be his grave? When his oxygen failed would the leucocytes dissolve his space suit and destroy his body?

Oxygen! Oxygen! He was dying because he did not have it—and all the time he was in a fluid that was filled with it! But it was carried in dissolved form in the red-blood cells and for all the good it would do him, it might just as well not exist. He couldn't use it. He couldn't get to it. Besides, the supply of oxygen carried in the red-blood cells at this point was almost depleted. They were returning to the lungs to secure oxygen and had none to give off.

Lungs! There was air in the lungs! The words echoed as clear as a bell in John Dark's mind. He shouted them

aloud.

He turned, raced down the branching artery. Slipping on the yielding surface, swimming in the viscid blood stream, fighting his way around redblood cells, ignoring the leucocytes, he followed the artery. Each time it forked, he took the smaller branch. The current was a gentle pulsation surging through the blood vessel. He moved faster than it moved.

He had to cover perhaps an inch, but to him an inch was a vast distance! The last gurgle came from his tank.

His oxygen was gone!

Ahead of him he caught a glimpse of another branch. The tube in which he was floundering had become so small that he could barely stand up in it. He was near, very near to the capillary system, to the thin-walled structures through which the red-blood cells absorbed oxygen from the air in the lunes.

His head was beginning to reel and his strength was failing. He dropped to his knees, progressed by half-crawling, half-swimming. On the walls of the blood vessel ahead of him the redblood cells clustered as thick as bees.

He was in a capillary!

How he found the strength to make a rent in even that thin wall Dark never knew. With clumsy fingers he poked and shoved at the thin membrane. He finally tore a hole in it and crawled through, the puncture closing behind him.

Was he really in one of the threadlike filaments of the lungs? Or was he among another mass of muscle fibers? He wished he knew.

Dark looked around him. The visor of his helmet was thick with heavy slime, but he saw enough to determine that he was not immersed in fluid. He was either in air or he was in a pocket

of the muscle fibers.

His head was roaring like a buzzsaw ripping through knots. With the last dregs of his strength he ripped open his visor, collapsed. As consciousness faded he felt, moist and heavy in his nostrils, but sweeter than anything he had ever smelled before -the free air of Earth.

He was in an air-sac of the lungs and a gentle breeze fanned his face. Heavy blackness settled over him.

ARK regained consciousness with the sound of a vast organ note drumming in his ears. For a moment he lay still, trying to remember who and where he was. Then the hideous memory of all that had happened came rolling back into his mind.

He sat up. The throbbing darkness was a heavy pall around him. He felt around for his light but could not find it. He must have dropped it when he lost consciousness, he decided, and it had slipped away into some of the many dark folds. His gun was still in its holster.

The organ note pealed again, a vast roaring torrent of sound that set into sympathetic vibration the membrane where he was, that echoed and reechoed in the vast caverns that seemed to be around him until all resemblance to the original note was lost.

"The human voice, heard under strange circumstances," he said to himself, "is enough to scare a man half out of his wits.

He still could not understand what the man was saying. The echoes in

the chest cavity warped the sound, distorted the words.

Dark sat still, not attempting to move. It was enough just to sit still and gulp the blessed air of Earth.

He had arrived on Earth, he had escaped from the Marlings, he had managed to get out of the blood stream. Now what? Without a supply of oxygen he could not re-enter the blood stream. Nor could he force his way through the muscle fibers of the chest and possibly eventually pierce the skin without a supply of the vital gas.

There was only one way out. Up! As he sat there in the blackness, and considered the dangers involved in attempting to escape through the air passages and out through the mouth or the nose-dangers that included being ground between closing teeth or being swallowed-a desperate hope came to him. There was a way out of the lungs, a way that involved either

death or escape.

He crawled slowly along the airsac. When he felt a thicker, firmer surface beneath him, he rose to his Walking, crawling, slipping back part of the time but always moving forward and up, he began the ascent that he knew would either end in a safe escape-or end in death.

In the darkness around him was the moaning sound of many winds. Alternately fresh air blew against his face, and alternately foul air blew past him. By keeping his face always turned to the fresh air, he oriented himself so that he was always moving in the direction in which he wanted to go-up and out.

And if he got out, if he escaped, by some method he had to get the information he carried to the men who

could use it.

When he reached a large tube where the current of air was heavy, he stopped. Deliberately he began to scrape his hands against the wall of the air vessel, breaking the membranes that lined it, setting up an irritation in the delicate tissues of the lungs. For an irritation in that location the body had one remedy.

Recklessly, he tore the tissues. scraping, tickling, waiting. And

nothing happened.

Then slowly, with gathering force the air began to blow against his face. Fresh air was coming into the lungs. Creaking and groaning, around him the tissues expanded as the lungs sucked in all the air they could hold.

The air stopped flowing. There was a moment of calm, like the calm that goes before the storm, a suggestion of vast forces gathering together for one titanic effort. Bracing himself against the wall, Dark stood in the air vessel.

From behind him came the sound of roaring winds. He took a long breath. The hurricane struck him. A cataclysmic blast howled in one burst of explosive violence through the lungs. The fury of the winds picked him up like a leaf caught in a tornado, whirled him over and over, lifted him up and up, jerked him against walls of tissue, slammed him from side to side of huge black tunnels.

It was a howling, screaming, torrent of violent air, quite as strong, on its small scale, as any blast ever loosed by a hurricane. A cleansing, irritationremoving fury of wind. It lifted Dark's microscopic body with ease.

"Kerchoo!" Bill Jurgens exploded. And John Dark, riding the blast of the sneeze he had provoked by irritating the tender tissues of the lungs, was hurled completely out of the body. Whirling over and over and over, he was blown outward. Then he began to fall. But, like a dust mote in a sunbeam, he was so small that he fell slowly through the comparatively heavy blankets of normal air. He was so small that the air buoyed him up.

E floated gently downward. If the fury of the sneeze didn't kill him, he knew at least it would have taken him out of the body where he was an unwilling prisoner.

It didn't kill him. He was badly shaken but very much alive when he landed.

If he had had any choice he would

have selected any other place in which to land. At first glance he thought he was coming down in a forest. But he quickly recognized that matted tangle for what it was-the nap of a rug. The fibers-some standing straight but most of them broken and pointing in all directions-looked as large as telephone poles to him. He dropped between them, came to rest on what looked like a mattress of heavy ropes. In reality the ropes formed the warp and the woof of the rug on which he had landed.

An amazing, impossible, but very real world. Even if the objects he saw resembled things he had seen before only under a microscope, Dark was so glad to see them that he felt like falling on his knees and kissing the ropy coils that stretched away in all directions through the forest of twisted

He was on Earth! He was, at least in some measure, home. All that had happened to him was now a nightmare that was over. Or was it over?

Above him, coming down from the infinite distance, he heard the rolling sound of thunder.

Voices! Harsh voices, worry and strain evident in their tone, but human voices, speaking a human tongue! Not lashing thoughts crackling down over an antennae system. voices.

He listened.

"We picked him up out near the rocket fleet landing field. Part of the time he ran like a crazy man. Part of the time he walked like a robot. From his uniform, we knew he was off the rocket fleet-probably A.W.O.L. We were going to turn him over to the military police because he was in uni-Then he started saying that he was hearing voices. He insisted there was a fight going on inside him, that a stranger had jabbed him with a pin and then a fight had started inside him. He said the fight was still going on inside him, and that occasionally he lost complete control of himself. Then he gabbled a couple of words that almost drove us crazy. . . . "

"What were those words?" another, deeper voice said.

"He said, 'John Dark . . . John Dark . . . John Dark is calling to me

for help. . . ."

"And you brought him to me?"
"Hell, yes! In the midst of this
madhouse going on all around us,
we've been turning this country upside down looking for John Dark ourselves. When this guy turned up saying John Dark was calling to him for help we brought him straight to you.
... I'm not certain, but I've got a hunch this is damned important."

In rolling tones of distant thunder Dark heard the words. Looking up he could see huge figures standing all around him. Gigantic creatures! Their heads lost in the distance above him, so far away he could not distinguish their features.

ARK recognized one of those voices. And knew where he was and what had happened.

His telepath message had gone through! And it had almost driven crazy the man who had received it! The space man must be out of his wits. The testing of the Marling control clamped to his spinal column-the last official act of the donbar before he died-had almost paralyzed the stricken victim, Then the control had lapsed and flashes of pain had seared through him. The cops had grabbed him when he tried to flee from the invisible creatures that pursued him. Then Dark's message had come through. He had understood part of it, at least enough to know that some creature named John Dark was inside his body. He had cried out that name. And the cops had brought him straight to Captain Patton!

Dark was in Patton's office, at Police Headquarters. That rug on which he rested was the familiar rug that he had so often trod upon in the past.

And one of those voices coming down in tones of thunder from the infinitely distant sky was the voice of Captain Patton. A worried, harried, distraught voice.

"What's your name, sailor?"

"Bill Jurgens, sir, gunner's mate from the Minnesota."

"A.W.O.L.?"

"Yes, sir."
"All right, Jurgens. Tell me what

happened."
"I slipped away from the field and down to Sam's Place for a little beer

down to Sam's Place for a little beer, knowing the sirens from the field would warn me if an emergency call went out and the fleet had to blast off. . . ."

Jurgens told the whole story. Patton interrupted him once, with a terse order to the dispatcher to issue a general call to all cars to be on the lookout for a tall, drunken, gray-clad rocket man.

"Now about Dark."

"I seemed to hear him, sir. To feel him. . . ."

Jurgens got no farther. The voice of the dispatcher, coming in over the inter-office communication speaker, interrupted.

"Captain Patton. Sorry to disturb you, sir, but I've just had a flock of reports. The Flaming Death has broken out worse than ever. I've had seven reports of cases from our area within the past ten minutes."

"Oh, Lord," Patton groaned. "Oh,

Lord ..."
"That isn't all, sir," the dispatcher continued. "Reports from three cities have just come in. Detroit, Cleveland, and Cincinnati. The Flaming Death has broken out there."

And the one man who could solve the mystery of the Flaming Death was right in Patton's office. But he was so small that Patton, even if he had known where to look, could not have seen him.

CHAPTER XV

Problem in Communication

WHEN he had discovered where he was, Dark's first thought was one of vast relief. He was in the police station. His job was almost over. But when he tried to communicate with Captain Patton he realized that his job was far from over.

Perhaps it was not even begun. Perhaps the Marlings, in spite of the fact that they had been so neatly and completely tricked, would win.

For Dark was too small to communicate with his fellows. His voice was a thin squeak that would never register on human ears. He was too small

to be seen by human eyes.

He tried the telepath. Desperately he forced his thought impulses through it and waited for an answer that never came. During those heart-rending moments, when no answer came to his call, when the deep voices boomed over his head, utterly oblivious of his presence, he tasted the bit-terness of despair. To have come so far and to fail at the last moment.

A radio? There was a radio transmitter and receiver in the telepath. But without tools he could never adapt it to his uses, could never change it enough so that it would actuate a receiver designed to operate

on earth frequencies.

He pulled his gun, fired it upward. The flashes from the Marling weapon were lost before they reached the tops of the fibers of the rug on which he

was crouching.

His own gun was inside his space suit. He ripped a slit in the suit. To him the explosions of the charges were immense flares but to the men above him they were invisible. The gun clicked empty, the last explosion died. Above him the voices boomed on.

One chance remained. Smoke. If he could set fire to the fibers of the rug, the fire would grow. It would attract the attention of the officers. Perhaps he would be able to spell out the characters of the ancient Morse code in smoke signals. If Patton saw regular puffs of smoke coming from his rug he would make a careful investigation.

Dark trained the Marling weapon on a tangle of the fibers. The intense beam lanced out. The fibers caught. A tiny blaze licked over them. It began to grow. It was still too small to be seen, but it would grow.

Then he realized what would happen if the cops saw smoke coming from the rug. Their first thought would be that a spark had dropped from the tip of a cigarette to the rug. In the strain under which they were laboring it was doubtful that they would think any further than that. Automatically one of them would put a foot on the blaze, twist his foot.

And Dark, beside that fire, would be crushed to death.

Quickly he extinguished the blaze he had started. And as he did so, a gigantic foot came down near him.

It loomed as large as a mountain and to Dark it was as big as a mountain. He was in danger of being stepped upon and killed by one of his fellow men. He had to find a place where he could be safe. But where, in that

Under Patton's desk. He would be safe there. And there he could start a fire, Perhaps the police would extinguish one tiny blaze without giving it much thought, but if two or three appeared, they would begin to wonder. They might call in their technical experts, who would have microscopes. And in a microscope they could see him.

FF to the right, rising above the tangle of rug fibers, he saw a leg of Patton's desk, a gigantic, square structure soaring up and up and joining itself to something that looked like a cloud on the horizon's rim.

Scuttling between fibres, clambering over logs as big as he was, fighting his way through a tangled mass of
debris only to find his way blocked by
another mass, falling into holes between the vast ropes that ran in
through the fibers like gigantic
snakes, John Dark raced toward the
protection of the desk.

His breath sobbed through his lungs in whimpering gasps. His heart pounded until he thought it would burst from his chest. Sweating, sob-

bing, he ran.

Over him, in the infinite distances vast voices rolled their tones of thunder. Worried voices . . . Voices from men on the verge of exhaustion, from frightened, fretful, tired men fighting a losing battle against a menace they did not understand.

The fibers shook with the vibra-

tion of their footsteps. That he was not stepped upon and crushed was a minor miracle in a nightmare that was beginning to assume the proportions of a mad hallucination, that was beginning to destroy the little that remained of the fabric of his sanity.

He made it! He reached the leg of the desk, Sobbing, panting, hausted, he sank down against it, fought for his breath in the heavy. thick air that seemed to oppress him.

Safety. Safety of a sort. At least he would not be stepped upon under the desk. Then he heard voices,

Not the voices booming in the sky above him. Not human voices. He did not hear them with his ears.

They came lashing down through his telepath in the crackling tension

of thought!

Marlings! Somewhere near him were Marlings. He could hear them

talking to each other.

"I am almost positive I heard someone using the telepath," one Marling said. "He was out there, somewhere in that cursed tangle. He was so far away I could not hear what he was saving."

"You are a fool!" a second Marling answered. "Who would be using a

telepath here?"

"Perhaps the Earthlings have discovered the telepath," the first speaker

persisted. "Perhaps the Earthlings have wings! You are a fool. It is not enough to be marooned here in this wilderness but you must hear voices that have to be investigated."

"Peace!" a third thinker interrupted. "We must make certain that no one was using the telepath. We will continue in this direction. And keep close together and maintain a sharp lookout.

ARLINGS! Here in Captain Patton's office! They had heard his thoughts when he tried to contact the giants in the sky. The giants had missed his broadcast but the sensitive telepaths of the Marlings had picked it up. He knew that much from their conversation and he knew also that they were looking for the source of the broadcast they had heard

Where had they come from? How had they got here? By what subterfuge had they managed to gain admittance into the heart of the police sta-

tion?

Dark slipped away from the edge of the leg of the desk, slipped out into the tangled morass of the rug. They came slowly, their helmets open, keeping a sharp watch. Five of them. Five Marlings in space suits, antennae projecting over their heads like thin plumes, weapons in hands.

Dark dropped down out of sight. Through a crevice between two fibers he watched them go slowly by. They never saw him. Keeping close to the edge of the leg, they went out of sight to the right. The crackle of their

thoughts came back to him.

Marlings! If he started a fire under the desk they would be certain to investigate it. They would hunt him down through the wilderness of fibers and never rest until they had killed him once they were certain of his existence.

They had gone to the right. Dark turned to the left. With all the stealth of an ancient Indian he wiggled his way through the fibers, keeping near enough to the leg of the desk to be safe from being crushed under the foot of one of the men in the room, backtracking the five Marlings.

He found it neatly tucked up against the leg of the desk, where it, too, was safe. A Marling tank!

So the five had come from this tank. But the tank itself - how had it

reached here?

Dark deduced, from the fact that it was so close to the edge of the leg, that the tank had probably been moved to its present position. But even in it, the Marlings could not travel far. Earth distances were too vast. They would need a day to cross one room. They could neither ascend nor descend a stairway. If the tank got into a public place, it would be crushed underfoot.

Dark studied the tank. It looked as if it had seen hard service. It was spattered with red blotches and covered with a film that looked like dry

slime. "Well," said Dark to himself, "it won't do me any good to sit here looking at that tank. Impossible as it appears, the damned thing is here right before my eyes. The next question is, what am I going to do about it? Either there are Marlings in it, or there aren't. I counted five heading off into the tall timber. If this tank has the same size crew as the others. that leaves three unaccounted for. They may be inside. They may be out on a scouting expedition. But wherever they are, I could sure use the equipment in that steel caterpillar!"

Use it! He would give his life for it.

Dark loosened his gun in its holster, but left it in place. He stepped boldly from his place of concealment. Limping as if he had been injured, he

walked toward the tank.

If the three Marlings that were unaccounted for were inside the tank they would notice his approach. Even if they had detected that someone had been using a telepath in their vicinity, the last thing they would expect to see would be an Earthling, wearing a Marling space suit with obvious Marling equipment, limping toward them.

Especially a microscopic Earthman.

If he failed to deceive them, he would never get another chance to rectify the error.

Before he was halfway to the tank, a challenge cracked out at him.

"What is wrong? Why do you return?"

They didn't suspect him. And at least one was in the tank.

"I slipped," Dark answered, "and fell and hurt myself. See, I tore a gash in my suit." He pointed to the rent he had made to get his own gun from inside the suit.

"Are you badly hurt? Where are the others? Why didn't one of them

return with you?"

"I told them I could return alone. They continued their search for the source of the mysterious broadcast."

"Had they discovered anything when you left them?" "Nothing," Dark answered.

He knew that every radiated thought put him in more desperate peril. If the five Marlings heard what was supposed to be one of their number conversing with the guard at the tank, they would know that something was very much wrong. And the guard had only to use his telepath at full power to call to them.

The guard was not suspicious. He was merely cautious. Dark pretended

to fall.

"My strength is failing," he wailed.
"I slipped again. Will you help me
to the tank?"

"Certainly," came the instant answer. "Do not attempt to exert yourself if you are badly injured."

The door of the tank opened. Three Marlings came out. All three of the missing Marlings had been in the tank all the time.

Three to one.

Surreptitiously Dark pulled the gun from its holster. He slipped a little farther down into the crevice into which he had pretended to fall. Keeping the weapon out of sight, with only his head showing, he waited. They came scrambling through the debris toward him.

Dark waited until they were so close he could not miss. Lifting the gun over the top of the fiber, he played it across them at full blast, like a fireman using a hose, like a machine-gunner traversing his weapon across an advancing attack.

They died easily. And very, very quickly. If they had had time to broadcast a warning to the other five,

Dark did not hear it.

He did not pause to glance back at the three smoking bodies in the debris. The door of the tank was open. He leaped through it, his gun in his hand.

A glance told him there were no Marlings in the tank. He closed the heavy door, barred it. The lock, which was used for egress and entry when the tank was submerged, was closed.

Then he saw the figure standing against the opposite wall. His gun swung up. The figure did not move. It was chained to the wall. It was a man.

Dark slipped his gun back into its holster.

"My friend," he said, "you have changed a lot since I saw you last. You've aged ten years, for one thing, For another, you're all trussed up. But there is still no doubt that you are Dr. Bramwell."

Amazement flared in the man's dull eyes. And something of hope. He heard what he had never expected to hear again-the voice of a human be-

And who-are you?" he whispered. Dark told him. He loosed the chains that bound him. When Dr. Bramwell recovered sufficiently to talk coherently. Dark listened to his amazing story.

He whistled.

"So that's the way they worked it. They place the tank near the skin, reduce a human being to microscopic size, then swarm out and vank him into the tank. Then, since they cannot easily traverse the tremendous distances of Earth, they send out a radio call to another gang who is controlling another man. He comes along with a tiny magnet, picks up steel tank, Marlings, victim and all, and carries them where they want to go. The reason they didn't pick you up, and this gang that had you, was because they couldn't get one of their stooges into Police Headquarters, at least not after the cops had been warned to look out for magnets."

"That, in essence, is how it was done." Dr. Bramwell said. "How they first gained control of me, I do not know. I think they appeared at my cabin in my absence and set a trap into which I stumbled. After they had gained control of me, they used me to infect hundreds of others. I shudder to

think how many. . . . '

The physician looked sick.

Dark slapped him on the back. "Forget it," he said. "You couldn't help vourself."

"But-

"I said to forget it. We don't have time to talk about it. You and I have work to do, Dr. Bramwell. And little time in which to do it, and less knowledge. . . ."

CHAPTER XVI

The Capture of a Marling

APTAIN PATTON was a tired Jman. For days that seemed to stretch backward to eternity he had scarcely left his office. Coffee, whiskey, and strong cigars had kept him going, but he was fast reaching the point where even whiskey had no effect. His tired, worn, miserable body refused to respond to the stimulus of alcohol. More than anything in the world, he wanted to rest. To sleepforever. During the nights he had snatched short naps on a cot in the room adjoining his office.

Rest and sleep. They were more desirable than the gates of paradise. He couldn't sleep. He couldn't rest.

There was work to do.

The rasping of the voice of the dispatcher was a constant irritation. And when that voice wasn't on the air, the visaphones on his desk were vammering. Calls . . . calls . . . calls. The phone exchange was being kept open by a volunteer force of unknown heroes. And heroines.

Calls . . . The United Police Force covered the whole country. In this emergency it had the prompt and complete cooperation of every Federal agency that could render any assist-Army doctors, army nurses, army technicians were in the Chicago area. The outstanding research scientists from every field-medicine, physics, and a dozen allied fields, were in Chicago. A gigantic hunt was going on. But the alien creatures they were hunting constantly eluded them.

The problem was not only how but where to look. Two variables. One erratic variable was enough to scramble the brains of the smartest man alive. They had to look out for at least two maddening variables. Maybe more. Before they could find the aliens who were launching this attack, they had to look in the right place, at the right time, and in the right manner.

And looking with the naked eye

didn't do any good. Looking through a microscope didn't do any good if you looked in the wrong place or at the wrong time. Maybe a microscope wasn't the right instrument. Probably it wasn't. No matter how carefully the experts had used their microscopes, they had never produced any results.

He thought about that rocket man. Somewhere in one of the rooms of Headquarters, tired physicians, working with equipment hastily installed, were using fluorescopes and X-rays on

Jurgens.

Was the fluorescope the right instrument to use to locate those damned aliens? It had been used before, with no results. And so had the X-rays.

Calls on the visaphone. An array of distinguished specialists passing

through his office.

And outside, in Chicago, madness stalked through a city that was almost deserted. Now the death was

striking in other cities. He thought about John Dark. From

Farrel they had discovered that Dark had learned about Bramwell's lodge. They had located it, eventually. Near it they had found a deserted squad car.

But they hadn't found John Dark, although they had dissected that lodge to shreds looking for a clue. They had found bits of torn flesh, fragments of explosive pellets. There had been a fight. They found enough to know there had been a fight. But they hadn't found Dark.

CHECK of the scattered inhabitants of that area had revealed that rockets had blasted in the sky the night of the day he had disappeared. They found where a small ship had landed near the cabin. The residents claimed they had heard it in the sky, always at night, on other occasions.

They hadn't found that ship. It hadn't returned. A guard was kept at the lodge. But the ship didn't come back.

They had searched a thousand ships. They had caught smugglers

that they didn't want. The very ship they wanted might have passed through their fingers. There was no way to know. If they could not locate the aliens when the devils were certainly in Chicago, how could they find them when they might be in any of a thousand different ships?

Rumors from Europe. Ugly rumors. A viciousness that had been beaten to Earth and smashed underfoot was rousing itself to life again. From some hidden source, the fragments of a smashed empire were receiving sus-

tenance.

Was this the end of man's reign over Earth? Would the long, slow climb upward from the slime end here, as some alien menace crept in from some unknown source and destroyed human life?

Patton snarled into the visaphone. Tired men snarled back at him. He snapped at the haggard faces that came into his office. The faces

snapped back at him.

But they obeyed him. If he drove them like dogs, they could only act like dogs, with one exception. They were fighting dogs. They might show their teeth at their leader, but they would obey him.

Captain Patton was the ranking offficer of the Chicago area of the United Police Force of the United States. Heretofore the scourge had been confined to the area where he commanded. But now it was spreading, striking in other cities. And no one knew how it spread or how to stop it.

He leaned back in his chair and closed his eyes. Momentarily the raucous rattle of the police radio, directing the squads over the city, was stilled. Neither the visaphone nor

But the door opened. An unshaven face peeked in. Patton wearily opened his eyes in time to see the face before it was removed from the doorway.

"Come on in, Farrel," he said. Lieutenant Farrel came in.

"I was just wondering—if you had any news, sir?"

FARREL had asked that question a million times. He had seen his

sidekick die in blazing flame after attempting murder. Above all other things Farrel wanted to get his hands on the creatures who had controlled and then destroyed Burney.

So he kept asking one question.

Sometime he would get the right an-

Patton shook his head.

Farrel turned to go, but Patton waved him to a chair.

"Sit down, Lieutenant."

Farrel took one step toward a chair. He froze into instant rigidity. Something had sighed in that of-

"What-what was that?"

Patton sat up very straight. All trace of weariness left him.

"I don't know. It sounded like-"

It came again. Whoo-sh! The soft, long drawn

sighing of heavy winds. Patton was out of his chair, his eyes

darting over the office. Farrel's hand went to the gun swinging at his hip.

Like the rush of air from a broken air line, the sound came again. And a wind, a wild wind was suddenly blowing in that office. In the snap of a finger it grew to hurricane violence.

Torrents of air leaped out of nothingness.

And beside the desk something else began to appear out of nothingness. "Out!" Patton shouted at Farrel.

"Out of here!"

They went out of the door together. Behind them the sound of howling winds was a monstrous roar. A current of air followed them. There was a clattering, a clashing, and a banging.

"Get the reserves," Patton snapped at Farrel.

But the reserves had heard the

sound. They were already coming. In Patton's office a giant seemed to be smashing the furniture. His voice was the roar of howling winds.

When he stopped his banging and his howling, Captain Patton led his reserve force of husky six-footers down the corridor toward his office. Before he got to the door, a stag-

gering figure emerged from it. Captain Patton took one look at the two antennae sprouting from its head, at the grotesque clothing that it wore, and knew where he had seen another creature like that.

On the vision screen of the police receiver when the broadcast from the alien station had gone on the air the night the flaming death first appeared!

Farrel made the same instantaneous deduction. Here was one of the creatures that had destroyed his partner.

How it had got here he did not know. Nor did he care. There was only one thought in his mind. Ignoring Patton's shout to him to stop, he launched himself toward the alien. He didn't attempt to use his gun. A bullet would be too good for this devil. Roaring like a maddened bull, he charged, his great hands outstretched. All he wanted was to get his hands on this monstrosity.

It went down before him like a tenpin struck on the nose by a bowling ball. Patton and the reserves pulled him off. Patton wanted that alien

alive

"Thanks, Captain," the alien said, in a tired, worn voice. "The lieutenant is rather impetuous tonight."

The alien attempted no resistance. It lay on the floor, and talked to him! Patton blinked his eyes.

"If you will have your men put away the guns they are pointing at me," if said, "so I can be certain they won't shoot me the first movement I make. I'll sit up."

Patton recognized that voice.

"John," he said, "don't bother to try to get up because I'm going to sit right down beside you. And when I recover from the shock I've just had. there are a million questions I would like to ask you. How-why-"

"One minute." Dark answered. "If you'll only help me get this infernal

disguise off!"

CHAPTER XVII Battle in the Sky

T was a mad world into which John Dark returned. There was chaos in America. The air was jammed with the news of swiftly-striking tragedy. And there were ugly rumors from Europe, Captain Patton told him

told him.

"We've got two fights on our hands," said Dark wearily. "We have to fight against nations from our own world. And at the same time we have to face the menace of the Marlings."

"Yes," Captain Patton agreed. "But now that you're back we know what to

do about the Marlings."

"Right," Dark answered. "We know what to do about the Marlings -Ignore them!"

"Ignore them!" Patton echoed.

"Precisely." Dark answered. "First, because there is not much we can do about them. We haven't the time to run down the centers of infection from which the Marlings are spreading. Secondly, because our immediate menace is not coming from the Marlings, but is coming from Europe."

"But," Captain Patton sputtered, "there is no fleet that can compare with ours. Europe may put thousands of converted cargo ships, liners, and freighters into the air and attempt to bomb us, but their ships will not have

a chance against our fleet."

"The point," said Dark, "is that we don't have a fleet. It is unquestionably saturated with men who are controlled by the Marlings. If it blasts off—and probably if it doesn't—the ships will be destroyed by members

of their own crews."

Patton's mouth hung open. He closed it with a click. To him, and to every other American, that rocket fleet had meant one thing—protection. It was a barrier set against the foes that might come down from the sky. And, in the event that foes came in from the outposts of space, the fleet would be a barrier against them too. But now foes had come from both

places. And to meet them—

"Are—are you sure?" Captain Patton whispered huskily.

Dark told him what he had learned of the plans of the Marlings.

"The Marling crew of which I was a member was ordered to secure control of a member of the fleet's fighting forces. The man from whose body I emerged was a space man. There is no doubt that by this time hundreds of men belonging to the fleet are soulless robots, forced to obey the commands of their distant masters."

"What-what are we going to do?"

Patton breathed.

"Dr. Bramwell and I," Dark nodded toward the pale physician who had also undergone the fearful process of increasing in size, 'are going to see the President of the United States. Dr. Bramwell is going along to corroborate my story."

"I'll go with you," Patton snapped.
"No," Dark shook his head. "You stay here. If it's humanly possible, I

want you to find three certain men for

"Three men?"

"Yes," Dark answered grimly. He gave the names to Patton. "And don't take any chances with them," he added. "One of them is the most dangerous man alive on Earth today."

MARK and Dr. Bramwell left
Headquarters in a squad car furnished by Captain Patton. A previous
long-distance call to the new capital of
the United States—located in the Middle West after the war of 2042—had
advised an aid of the chief executive
that they were on their way.

Dark looked up as the air-car spiraled into the night sky. Somewhere in the vault overhead, where tiny stars twinkled reassuringly, was the Marling sphere, a circling satellite of hovering menace. Dark could not see it, but he shook his fist at the sky.

"Your turn is coming," he said.
"After we have made ourselves secure
against the attackers from within, we'll
take care of you!"

As long as the Bridge to Earth existed in the sky overhead, there would be no safety among men.

NDER other circumstances, the President would have been gruff and cynical. In other circumstances, at that hour of the night, he would have been in bed. But he was not in bed and he was not gruff. He and his aides, including the Secretary of War, listened to Dark. But they were skeptical.

They could understand an attack from Europe. They could visualize rocket ships roaring down the sky. But

-microscopic creatures. . . .

Dark motioned to Bramwell. The pale physician began to speak. When he had finished, much of the skepticism among the group had evaporated. But not all of it. Not even Dark's reputation when corroborated by the word of an eye-witness, was sufficient to carry conviction to that group. Fundamentally, they were politicians, not scientists. And they could only understand what they could see, and little more.

Dark groaned inwardly. When, he wondered wearily, would the country be relieved of the professional politi-

cian?

"Call Chicago," he snapped. "Have the Police Department hook up a portable visaphone and flash a view at the tank in Captain Patton's office."

They did as he requested. And there, in that tank, they found something they could see and in consequence believe. The last lingering traces of their skepticism vanished, to be replaced by fear.

"What do you want with me?" the President asked.

Fresident aske

"I want you to help me save that fleet," Dark answered.

"Save the fleet! Man, what do you mean?"

Again Dark had to make lengthy explanations. He had to explain the twin menaces that threatened America and how they were working together. And while he talked, precious minutes sped by. At the end he won his point, but he won it largely because something happened that no politician could overlook.

Two aides came dashing into the room. Each waved squares of yellow paper before the chief executive. He

took the first one.

"European rocket fleet blasting into air," the President read aloud. "Destination unknown, but attack on America

probably matter of hours."

There was instant silence in that room. The President's face was suddenly cut by heavy lines. In a moment of need, facing something he could understand, he could make decisions. He reached for the visaphone, snapped a command to the operator to put him through to the admiral of the main fleet, at Berthoud Field.

"If that fleet dares to attack us, we'll blow them out of the air," he roared. "We've got the biggest, most powerful fleet in the world, ready and waiting."

Then he read the second telegram. As the meaning of the words written on the yellow square stamped itself on his mind, he shook with a sudden palsy.

"Oh, Lord . . ." he whispered. From lips that had suddenly grown thick, he read the message aloud.

"Minnesota destroyed by explosion of powder magazine as she lay in cradle at Berthoud Field. Ships on both sides so badly damaged by the blast they are unfit for service. Sabotage suspected, but no definite information as yet."

In the heavy, stunned silence that fell, Dark's voice was a rasping snarl: "That's what I've been trying to tell you. This country doesn't have a fleet! We're utterly defenseless." "What do you want me to do?" the

President whispered.

"Issue an order, as commander-inchief of the rocket fleet, for the instant evacuation of every ship at the field. Order every man, from the admiral down to the newest recruit, out of every ship. And hold them out of those ships until we have time to discover the controls the Marlings have planted in the men."

The President and his aides were stupefied.

"But there's an attack coming," someone wailed.

Dark was on his feet. He was pounding on the desk of the chief executive. "Of course an attack is coming. But unless you take every man out of those ships this minute, every rocket flier will be blown up before they can get out of their cradles."

The man to whom he was talking was the elected ruler of the mightiest nation the world had ever seen. Dark did not care. The words snapped from his lips with the ramming force of mauling fists. And the President, with grim evidence of the truth of Dark's words staring him in the eye in

the form of two telegrams, had no choice other than to believe what Dark was telling him. The order to Berthoud Field, which was to have put the ships into the air, was canceled. The crews were ordered to leave their ships.

For minutes, while the startled admiral was executing that order, Dark knew that the fate of the country hung in the balance. But before he had left the capital, he knew that a part of the danger was past. One cruiser had been destroyed before the crew had left her. But the others were saved.

They lay in their cradles at Berthoud Field, splendid fighting ships. At that moment they were worth their weight in junk, for without men to man them, they were worse than useless. They were only a hollow mockery. They were the weapons of a giant, but the giant was chained.

And somewhere over in Europe a much inferior fleet was rising into the air.

THEN Dark dropped down out of the air at Berthoud Field, his task was to find, in the few hours remaining, among twenty thousand men, the hundred or so who had been infected by the Marlings. The victims could not tell him; they looked and acted normal. They might seem to be a little stupid, a little slow in They might seem their reactions. scared. They might tremble and give every evidence of fright. But so did twenty thousand others. They were all scared, they were all panicky.

Every staff doctor of the fleet was called to a hasty conference, told what to do and how to do it. Dark and the doctors working with him, including Dr. Bramwell, toiled late into the dawn. Using a magnifying fluoroscope, and examining lnch by inch the spinal column of every man of the fleet, starting with Admiral Blake himself, they had isolated seven men with microscopic structures clinging to their spine. They had certified as probably safe a few more than a thousand—enough to man one battleship and two cruisers with skeleton crews.

And with the dawn the converted freighters and passenger rockets from Europe, after laboriously climbing above the atmosphere, came down across the sky in a slanting power dive aimed toward America.

One battleship and two cruisers, inadequately manned, rose to meet a host. The other ships lay in their cradles at Berthoud Field, helpless.

Of the two cruisers which blasted off to meet the invading host, one never fired a shot. It exploded before it was two miles in the air, and droplets of hot steel fell in a vicious rain. Some doctor had slipped. Some-body had hurried his examination. A

body had hurried his examination. A Marling victim had slipped through and had been a member of the crew of the cruiser that had exploded. Two hundred and fifty men had died when the cruiser flared into white metal in the sky.

Dark, working feverishly with the doctors in the ground hospital at Berthoud Field, heard that explosion, guessed what had happened. He cursed like a madman.

The battleship and the one remaining cruiser in the air hovered over Berthoud Field warily, in a desperate effort to protect the ships grounded there from being bombed.

The diving fan of invading ships spread to cover the main industrial centers of the United States.

Rend, smash, destroy! Paralyze the key centers! Strike one sudden decisive blow. When the stricken nation has been brought to its knees, then dictate the terms of surrender. But smash first! That was the acumen of the enemy.

There had been no declaration of war. The old custom of warning your enemy you are going to attack him had gone out of style a century earlier.

During that grim dawn, when the roar of rockets sounded more than once over the field where the rocket fleet rested in its cradles, its fangs safely drawn, when the explosion of high power bombs sounded nearer and ever nearer, when the radio brought its stuttering news of death dropping from the sky all over the country, and of death faming unheeded among the

shambles, Dark, and the doctors working with him, sweat blood.

IT was sometime during the forenoon before their task was done. The last member of the fighting force had been certified okay, the last victim of the Marlings was shoved into the cells for later surgical treatment.

Dark staggered out of the hospital in time to hear a roar that shook the earth. Surging dust and rolling smoke billowed toward him, and bright tongues of livid flame darted around him, amid the shattering blasts of ceaseless thunder. The sound was coming from the ships of the rocket fleet, the flashes of fire were from warming rocket-tubes. The fleet was manned! The fleet had fangs!

Rockets up the sky! Grim, gray fighters blasting from their cradles! Fighting ships manned by fighting

men. There was an enemy in the sky. There was death on the ground where that enemy had struck. But now death was coming up to the sky where that enemy lurked. Now the giant was released from his chains and was leaping up to battle. Now the invading fleet, instead of facing an undefended, helpless nation, was facing the strongest force of fighting ships in existence. Drumfire and the roar of rockets surging up to meet the foe echoed in one ceaseless blasting thunder over Berthoud Field.

Dark shook his fists at the sky.

"Damn you!" he cried bitterly.

He was still shaking his fists at the
sky when Captain Patton and Lieu-

tenant Farrel found him.

"Well?" he rasped at them.
Patton shook his head. "We've
turned this city inside out and we
can't find either Hardwick, Small, or

Foster."

Dark felt the strength drain out of him as he listened to their report. Wearily and abruptly he sat down on the steps of the hospital. "Then," he groaned, "this fight is just beginning."

Simultaneously with the blasting off of the rocket fleet, with startling abruptness the enemy attack ceased.

One minute reports of men bursting

into flame were coming in. In another moment, they had ceased.

Less than an hour later, reports from the fleet began to come in. The American ships had sprung into the air expecting to meet an enemy. They expected to find, and to smash, a vast number of bombing ships.

Instead they found the air over America free. The enemy had fled. From some hidden source, a sudden command had lashed out over the radio. When the command came, the enemy ships pointed blunt noses up-

ward.
They did not flee back to Europe.
They fled outward, toward open space.
"Enemy fliers have collected in one
spot about halfway to the moon. We

are preparing to attack them," the message came from the fleet. Fast on its heels came another message.

"Enemy ships have refused battle. After halting for a few moments in the void, they have suddenly begun to disperse in all directions."

CHAPTER XVIII

The Brain

A GAIN John Dark faced the President. This time the chief executive was neither gruff nor skeptical. He was trying to express his profuse thanks.

"You have saved the nation, Mr. Dark. The attack from Europe has been smashed, due to your knowledge and your actions. Without your warning. I would have had no choice except to order the fleet to meet the attack that had been launched against us, with disastrous results. In expressing my thanks I am expressing the gratitude of a grateful people."

"Thank you, sir," Dark interrupted.
"We have won a battle, but it was the
first battle. Only the last battle
counts. If you don't win the last fight
you might just as well not win any of
them."

"But," the President protested.
"The enemy fleet is fleeing madly in all directions."

"After halting in the void," Dark answered,

"What do you mean?"

"I mean this: When our fleet took to the air, the European Coalition knew they were whipped if they continued fighting. They had only one chance left after our fleet blasted off—to secure the Marling sphere, and obtain from the Marlings the secret of the reduction process. With that secret, they could fight again. Reduced to microscopic size, they could send a horde of their own people to this country, and we would never know we were being attacked until it was too late!"

"But why didn't they do that in the

first place?"

"Because the Marlings did not trust the Europeans and the Europeans did not trust the Marlings. Because of their mutual distrust, they worked together in a very limited way. Now the Europeans have seized the Marling sphere—"

"How do you know that?"

"Because their fleet collected together in about the place the Marling sphere occupied. One of those ships took the Marling globe on board. Then to baffle us, the ships fled in every direction. One of those ships has the Marling sphere on board. If we knew which one, we could do something about it. But we don't know which one. Some of those ships will probably land on the moon. Some will go on to Mars. Others will turn back to Venus. A few may return to Earth, And while we're chasing the decoys, the ship that has the Marling sphere will probably escape. And we will have another, even more desperate

have another, even more desperate battle on our hands."

The rosy smile of victory that wreathed the face of the President slowly dissipated as he listened to

"What-what do you suggest?" he faltered.

Dark.

"I suggest we watch and pray," Dark answered. "Call in the fastest, newest cruiser than we own. Cram her with fuel. Get her ready. Then instruct the rest of the fleet to maintain a constant watch. The minute

one of those fleeing ships makes an abrupt change in her course, we want to know about it."

Dark saw the hesitation on the face

of the chief executive.

"The Marlings," he explained, "above all other things want to return to their home satellite. They, and their sphere are on a space ship. If they have a chance, they will seize control of the crew of that ship, and force the crew to fly the ship to Jupiter. They don't give two hoots about helping their partners. They've got a problem of their own, and their interest lies in solving that problem. Therefore, when one of those fleeing ships suddenly changes its direction, it will mean that the Marlings have seized control of the crew, and we will know which ship we have to follow."

In spite of the doubt that was written on his face, the President issued the necessary order. Out in space, as the order came through, the New York, newest and fastest cruiser of the fleet, turned and headed back toward Earth.

The President again faced Dark.

"But if the Marlings turn against the Europeans, and force the crew of one of those ships to fly them back to their own world, they will menace us no longer."

"We don't know that," Dark answered. "We will never be safe until we know how they built the bridge by which they crossed the void of space, why they attacked us, and what grim menace they are facing. From what I heard when I was a prisoner on their world, I suspect I know why they attacked us in the first place."

As Dark hesitated, the tension in that room seemed to partake of the nature of an electric charge. Into the silence his tired voice droned.

"Why did the Marlings kidnap the head of the space-ship industry, Samuel Mendel? Why did they seize Harrison Taylor, the world's foremost authority on the structure of the atom? Why did they seize our leading scientists in a dozen different fields? Because they need knowledge that they do not have. And they are planning to secure that knowl-edge, not from the men themselves, but from a gligantic brain they intend to construct from the actual living brains that have been removed from the foremost scientists of Earth! Don't you see? The combined brain of Earth are to help them solve their predicament, whatever it is!"

The force of Dark's words fell like so many different blows on the minds

of his audience.

"And that," he added quietly, "is another reason why we have to secure the Marling sphere. We not only have to destroy the threat of another attack at us, but we have to save our

foremost scientists!"

Some time during the night that followed, word came in from the fleet. A fleeing flier that had been setting a course for Venus had suddenly reversed its direction and had headed out toward space.

From Berthoud Field the New York

blasted off.

CHAPTER XIX

Pursuit Across Space

THE cross-hairs of the telescope were centered on the tiny jets of orange fire flaring so far away in the void.

"We're following directly behind them," the observer spoke, lifting his

eyes from the telescope.

"Good," Dark answered. "Maintain your present course and speed, and be sure you don't let that ship out

of sight for a second."

There were seven men in the control room of the New York. Captain Nelson, commander of the ship, the observer, two men in the gray of the rocket fleet at the controls, Captain Patton and Lieutenant Farrel. And Dark. They had been in space for eight days, following, always following, the faring jets of a fleeing ship.

Farrel spoke slowly, heavily, in his growling, bull-dog voice. "I don't like this. We're deliberately permitting that ship to run away from us. We could have overhauled it, but we haven't."

He looked suspiciously at Dark, but he did not add, "And we're flying at

your orders."

Dark grinned. "It is scarcely possible, in view of the revelations I have

sible, in view of the revelations I have made, that I, too, am a victim of the Marlings."

"I didn't say that."

"No, but you're thinking it . . . I admit my order, to permit that ship to draw slowly away from us, looks suspicious, but I have a definite reason for that order. We don't want to overhaul them yet! If they draw away from us gradually, they will think they have the speedier ship, and if they seem to lose us entirely, they will eventually lead us to the place we want to go—the home world of the Marlings."

Farrel looked uncomfortable.

"I know from my conversation with their leader," Dark continued, "that their home world is one of the satellites of Jupiter. But which one? Jupiter has four major moons, Io, Europa, Ganymede, and Callisto, and several other circling satellites. If the Marling civilization spread over a whole moon we could easily find it. But if their race occupies a single city -and that city possibly underground -we might hunt for years and never find it. We haven't got years to waste. The best way to find the home world of the Marlings is to permit this ship to lead us there."

"I still don't get it," Farrel grumbled, "If we overhaul this ship, we will recover all the men they have captured."

"And leave the Bridge to Earth still intact," Dark snapped. "They got to Earth once from their home satellite.

They could do it again.'

Captain Nelson, commander of the cruiser spoke. "This ship is yours to command. We can overtake that filer if you wish. Perhaps it would be wise to have assistance. Perhaps we should have at least part of the fleet with us. We don't know how well defended their world may be."

"Their defenses," Dark answered



trick up my sleeve that will offset any defense they may possess."

It was Captain Nelson's turn to

look uncomfortable. Only Patton seemed at ease. But he knew Dark

better than the rest.

"Captain Nelson," Dark went on, "with your kind permission I would like to borrow your technicians, especially your electricians. And all the equipment you have on board."

"Certainly." Nelson answered.

HERE were four electricians and one radio technician on the cruiser. The electricians soon discovered that Dark knew more about electric currents than they did. The radio man held out the longest. Finally he gave in.

"I thought I was going to get to tell

you something about radio," he said. "Instead I find I'm going to learn something myself."

Dark grinned at him. "I don't know as much as I would like to know," he said.

He drove them like slaves. They worked harder than they had ever worked before, And liked it. They used all the spare parts in the storeroom. Then, over the protests of the radio operators, they dismantled one of the radio transmitters and used the coils and tubes from it.

When they had finished and turned the current through the weird array of apparatus they had assembled, a rolling, fluorescent screen wrapped itself around the cruiser.

"Close the gap between that ship and this cruiser to less than a hundred miles." Dark ordered. "While we're not invisible they'll have to look

mighty close before they spot us."

The cruiser picked up speed.

A stern chase is a long chase, especially when it must stretch from Earth to Jupiter. Days passed, days of driving, pounding, thudding, never-ending acceleration. Mars, the limit of penetration as yet reached by the explorers, moved far to the right, and then disappeared into the void that lay behind the cruiser. Earth had dwindled to a dot the size of a star. The unsetting sun was shrinking.

Onward the cruiser drove, into the vast void between Mars and Jupiter. And always before them the dancing midges of fire from the ships they were following flared like orange blossoms, leading them onward.

Captain Nelson's face grew graver and graver. He held endless conferences with his aids and engineers.

"We won't have enough fuel to return, if we continue to the moons of Jupiter," he announced.

"Blast on," Dark answered. "If we don't end this menace now, we'll have to fight it later, on its own terms and under any conditions it chooses."

The gulf of the asteroid belt rose up before them. The fleeing ship went above it. The cruiser followed. They stood staring at the wicked outlines of the asteroids in the void below

"We're farther out than any man has ever been," Captain Nelson said softly.

Dark pointed to the ship ahead of

them.
"There are men in that ship. They

may be microscopic in size, but nevertheless they're men."

He was thinking mainly of Harri-

He was thinking mainly of Harrison Taylor.

They came down toward Jupiter on a long slant. Angry and red, the giant planet loomed before them, its circling moons twinkling in the void around it.

But the ship that fled from them did not stop at the first moon, the one that was farthest from Jupiter. Nor at the next one. Nor at Ganymede, Io, Europa, or Callisto.

It drove inward, toward the moon nearest to Jupiter, toward Satellite V. And Dark whistled shrilly when he saw the ship settling down toward that small, egg-shaped satellite, a moon caught in the sawage grip of Jupiter's gravity, already very near its primary and constantly drawing nearer.

"Lord!" he breathed. "So that's the menace from which the Marlings

were fleeing!"

For the first time since the Flaming Death had struck Harrison Taylor, there was something of pity in Dark's voice. He understood now. . . .

THE fleeing ship dropped down toward a large valley circled by high mountain ranges. The valley was on the edge of the glow zone, and from it a part of Jupiter was visible. The rockets of the filer braked the ship as it descended toward the city that nestled in that valley. And the unseen cruiser followed, less than a hundred miles behind it.

The cruiser landed in the mountain range to the east of the gigantic citystate that was the home of the Marlings. The chemists reported the air was thin and cold, but breathable.

lings. The chemists reported the air was thin and cold, but breathable. They looked down into the valley from the top of a tall precipice and

saw the city. Even Captain Patton's faith in John

Even Captain Patton's faith in John Dark faltered then.

"Whew!" he whistled. "It's big! Subconsciously I had been expecting to find a world of microscopic creatures compared to which we would be giants. Instead I find one of the biggest cities I have ever seen. Judging from the size of the buildings, the Marlings normally must be as large as we are. And there must be millions of them down there, Millions!"

The others said nothing. Dark knew what they were thinking. They had two hundred and fifty men, and one cruiser. They were outnumbered thousands to one. If the cruiser were gunned down, they would have no means of escape.

The city blazed with lights. The satellites of Jupiter always faced their mother planet, and this city, just on the edge of the glow zone, needed artificial illumination.

"Well," said Dark thoughtfully. "I know what it's like to be smaller than the head of a pin. I would like to try the other extreme for a change. And, to go with me, I would like to have fifty

volunteers."
They gazed at him.

"Fifty!" Farrel muttered. "Fifty against millions."

"Yes," Dark answered. "Fifty against millions."

Captain Patton took a long breath.
"I think I know what you've got on
your mind," he said. "If you could use

an old man, I would like to be one of the forty-nine who go with you." Farrel shrugged. "I came this far.

I'm not going to back out now."
"That leaves forty-seven."

"Forty-six," Captain Nelson corrected. "We'll get the others from the

crew."

Dark led the way back to the cruiser.

The crew, advised of what Dark was planning, first hesitated, and then volunteered to a man.

From the cruiser Dark brought the machine they had taken from the Marling tank. The electricians ran lead cables back to the generators of the ship.

"Remember," said Dark. "The first thing we want to do is to rescue the prisoners. After that, we'll try to see if the Marlings will listen to reason."

Then he went to work.

CHAPTER XX

Giants from Earth

ARL stepped from the lock of the ship that had brought him and his followers safely back across the gulf of space. Restored to his normal size, Mari flung his head back erectly, walked purposefully. But his thoughts were grim.

The people had seen his ship from afar. They thronged by the thousands in the great square that formed the center of the Marling city. Their thoughts flashed through the air in a crackling stream. More than two Earth years ago they had sent forth an expedition from this same city, from this same square, and now this expedition had returned. That it had come back meant that their mission had been successful.

And now, after the long centuries of growing terror, the Marlings had a chance for life. The exultation they felt surged in a crackling torrent from

thousands of radio telepaths.

Marl, standing beside the lock of the ship, felt that wave of exultation. He heard the joyous thinking of his people. The malevolent lights in his eyes faded away, were replaced by softer glints.

These were his people, these thronging thousands jamming into the square to welcome him. Marl was cruel. He was heartless. He was treacherous. He gave no quarter and he asked none. But his cruelty and his treachery, his devious planning, had one end—that

his race might survive.

If that fight for survival meant the extinction of captives stolen from another race across the void—well, he knew that the race from which the captives had been taken, were, in spite of their splendid science, little more than savages. They owned the richest planet in the Solar System. They were reaching out from it to other planets. Yet in spite of the rich heritage that was their birthright, in spite of the far-reaching science that had enabled them to rise to dominion over their world, they fought among themselves, savagely slaughtering each other.

There was enough for all, there was more than enough in that world across the sky, yet they oppressed each other. This Marl knew, not only because he had been told how vicious was one tribe of those savages, but because he had seen two tribes fighting each other with rocket ships and bomb and shell.

If members of such a race died that the Marlings might live, perhaps the Solar System was by so much the gainer.

Marl faced his people. As he raised his hand for them to be quiet, he heard, dimly in the east, the low sound of thunder, and he felt, under his feet, the crust of his home world tremble. His face blanched. Had he returned too late to save his people? Were those quakes about to reach their maximum?

But the sound died. And the ground

ceased trembling.

"My people," Marl said. "We are successful. But not in the way we had planned. I know you thought us dead, thought us lost in the void of space. Through s om e miscalculation, our sphere failed to reach the planet toward which it was directed. Instead, it became a satellite of Earth, a second, tiny moon. We remained there in the sky while the planet circled the sun, in sight of the world we sought and yet unable to reach it.

"At last, a small ship crossing the void discovered us. From the master of that ship we learned the nature of the world to which we had thought to go for help. It was inhabited by cruel, heartless savages, and of these savages a race known as the Americans had risen to pre-eminence. In a war that had recently been fought, they had conquered the inhabitants of a continent called Europe, and they held in cruel subjugation the millions of people who lived on the conquered continent.

"This man who found our circling sphere belonged to Europe. We made a bargain with him. In return for helping him throw off the yoke borne by his people, we were to have our choice of the scientists of this land of America. In order to help our benefactor, and to confuse the Americans, we also seized a number of unimportant people. And because we knew these American scientists would never of their own will help us, we were to be permitted to take their living brains and to construct from them one giant brain, containing all the knowledge they owned, and from that obtain the solution to the problem facing us."

THE ruler surveyed the silent sea of faces before him, then continued. "Unfortunately, the attack against America was not successful. We secured the scientists we needed, but our benefactor was defeated. Then we truly learned how treacherous he was. Instead of carrying out his part of the bargain, and providing us with a ship to return to our home world, he seized our sphere, and us with it, and attempted to secure the secret of the reduction process by force. Fortunately, we were able to seize control of him and his crew, and to force them to bring us back to our own world.

Marl paused, and his memory went back over the hardships he had undergone. But the thanks of his people poured out to him, and because of that, the hardships he had suffered had been worthwhile. His chest swelled.

"I am glad to be able to report, then, that we have been successful."

As his thought reached out over the crowds facing him, the low rumble came again from the east. There followed immediately a series of heavy thuds, and the crust of the satellite trerolled.

Marl looked to the east. So did his

people.

At first, he could not believe his eyes. A race of giants was leaping down from the mountains. The thud of their pounding feet was plain. The hoarse booming of their voices was like thunder in the night. In their hands they carried huge weapons from which they began to fire a constant stream of shots.

ARK, using the Marling reduction machine, reversing the process and carrying the operation to its logical conclusion, had made of himself and his companions—giants!

Fifty giants. There were no clouds in the thin air of that sky. If there had been clouds, the heads of the giants

would have been above them.

Paralyzed, Marl stared at them.

Then his scream echoed through the square, and he began a desperate effort to organize his people against this attack that had come so suddenly and so unexpectedly upon them.

Dark led the attack. He saw, as the city, that he had been mistaken about its size. It was larger than he had thought. Even if he was a giant, and even if there were forty-nine giants with him,

they were going to have their hands full. Especially when the creatures they were attacking had vicious stings.

The weapons of the Marlings, larger editions of the hand guns with which they were armed, stabbed at the giant attackers with small but intense beams of light. If they lost most of their effectiveness before they reached as high as the head of a giant, they were still fifty per cent efficient when used on his feet and legs. They did not produce instant disintegration, but they produced intense pain, and when one of those beams struck a giant in the leg, that giant howled with sudden anguish.

Off to the right, Dark heard Farrel

down, he was not out. He flailed the structures around him into splinters, silencing the guns that he could reach by smashing them under his hands, throwing huge building stones at the ones he could not reach.

Although several of them fell, the wave of giants rolled resistlessly over the Marling city. The booming of their pistols, enlarged to a size that would fit their hands, was a continuous

thundering roar.

They did a good job with those pistols. But they did a better job with their feet. One kick would smash a building. A stamp and there would be nothing left alive in the debris.

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howl in pain as a beam struck him in the leg. The cop hopped on one foot for a second. Then he stamped viciously on the ground with both feet.

There was one less Marling gun crew with which to contend. But before he had stamped one gun

crew to nothingness, another had stung him. "They're thicker than wasps!" Farrel

howled.
"And a thousand times as danger-

"My legs . . ." another one sobbed.
"They've burned into the bone. I can't stand up—"

ous," another giant boomed.

He fell heavily. But though he was

They rolled into the city like a tidal wave, smashing, rending, destroying. After all, they had come from a planet where war was an ancient trade and destruction an honorable profession. Here, on this satellite of giant Jupiter, they had a chance to use all the instincts of their race.

And the Marlings fought back. As the Americans had fought when the rocket ships came down the sky at them, so the Marlings fought when these giants sprang upon them. For they, too, were defending their aomeland. Stubbornly, gallantly, disregarding the certain death that faced them, they fought. With blind courage, with

little hope of winning, they fought these giants. They were ants, they were pygmies, but they had the courage to fight to the death.

HE slaughter sickened Dark. He had not come across space to destroy a courageous people. But, until he got here, he had not known he was to find a courageous race.

"To the central square," his voice rolled out. "The flier landed there. We came here after those prisoners. After we get them, we'll consider what

to do with the Marlings!"

A giant tube, like the barrel of a huge cannon, greeted the Earthmen when they reached the central square. And seeing it, Dark knew he had found the Marling's Bridge to Earth!

Then Dark saw the space ship. A tiny figure was trying to close the lock. Dark leaned down. Despite his great size he could recognize that figure in

the lock. Marl!

With one hand Dark reached down and lifted Marl into the air. His first thought was to crush the Marling in fingers. Marl, leader of the Marlings, deserved that fate. Or did he?

Dark hesitated only a second. Then he thrust the Marling leader into his pocket. He bent over and peered into

the space ship.

Several Marlings were trying to operate the unfamiliar controls. They were forcing as many men to help them. One of those men held Dark's eyes. There was no mistaking that bald head.

"Emil Hardwick!" Dark muttered.
"But not the Emil Hardwick I knew.
He died a year or so ago! And a man
whom I thought was dead took his
place, a man by the name of Basil
Dunning. . . ."

Dark and his companions lifted the ship, and, holding it high in the air, carried it away from the Marling city, back to the cruiser in the mountains.

"I should have pierced your disguiss the night Harrison Taylor seemingly was destroyed right before my eyes," said Dark bitterly to the captive Dunning. "When I saw that tiny magnet. And when it disappeared from that room, I didn't realize what had happened—that someone in the room had stolen it. It was only after I found Dr. Bramwell in the Marling tank that I fully realized what that magnet meant, that it was used to plot the steel Marling tank and the captive in it. Then I remembered your falling on the floor when the others began racing away from the scene of Taylor's disappearance. During that scramble you picked up the magnet, and the Marling tank with Taylor unconscious in it.

"It was you, Dunning, alias Hardwick, whom you no doubt killed, that found the Marling sphere circling Earth. You wanted to revive the smashed dictatorship of James Harkor. When you found the Marling sphere, you thought your chance had come. You wanted to be master of the Earth."

The bald, shaved head of the man whom Dark had known as Emil Hardwick glistened with sweat. Around him were the fierce faces of the men who had been prisoners in the Marling sphere. And around him were the giants who had come down over the Marling city. Now the giants were reduced again to their normal size.

There was one alien figure in that group in the cruiser. Mar!! He was guarded. In vast perplexity he sur-

veyed the bitter men.

ARDWICK said nothing. There was nothing he could say.

"The Marlings came to Earth for help, not to attack. But you found them and you lied to them. You told them we were a race of savages ruling over Earth by force."

Dark jabbed the words home.

"For your sins, Dunning, you are going back to Earth to face a jury of your peers. And the penalty for all the deaths you caused by launching that rocket attack from Europe will be —death."

Dunning seemed to slump. Nervously he licked at his lips. His hard, gray eyes ran over the group facing him. He found no mercy anywhere.

"Lock him up," said Dark. "He goes back to Earth in chains."

When the shambling figure was led away, Dark turned to Marl. "Your race," he said softly, "faced with approaching doom, constructed a gigantic gun. I saw the barrel pointing up at the sky in the square where the ship landed. You built a projectile to be fired from that gun, and reduced thousands of your kind to microscopic size, fired that projectile out toward Earth. Your astronomers miscalculated, and your sphere, instead of landing on earth, became a second satellite. That gun and that sphere were your bridge to Earth, a bridge over which you were sending a despairing call for help."

SURPRISE flickered in the eyes of Marl, proving Dark's surmise correct.

"Yes," he answered. "That is what we did. We knew your race had achieved space travel, and were advanced scientifically. We hoped you could help us. If we could once get to your world, we could return on one of your space ships. And we had to get there, we had to have help..."

"I know," Dark said sympathetically. "You race had the misfortune to evolve on a satellite that was too near to Jupiter. As the centuries passed you discovered you were drawing nearer and nearer to the huge planet you circled. Your world was within the danger zone of Jupiter and was doomed in the near future to be broken into fragments. That was the menace you were fighting-the break-up of your home world. And that is the menace we will help you overcome. If you will reduce your whole race to microscopic size, we will remove you from this satellite. We will take you to some other planet-Venus. will help you."

Marl's eyes glowed in surprise.
"Help us!" he fluted. "You will
help us, after we attacked you?"

"Certainly," Dark answered. "At times we act like savages, but even a savage knows the meaning of a call for help."

And the look of gratitude that burned deep in Marl's eyes indicated clearly that the bridge between the world of the Marlings and Earth was no longer paved with hate. It was shiny, white road cemented by peace,

NEXT ISSUE

THE FORTRESS OF UTOPIA A Complete Book-Length Novel of the Citadel of Science

By JACK WILLIAMSON





THE LIFE STORY OF ALFRED-BERNHARD-NOBEL

WHO INVENTED DYNAMITE

BY JACK BINDER

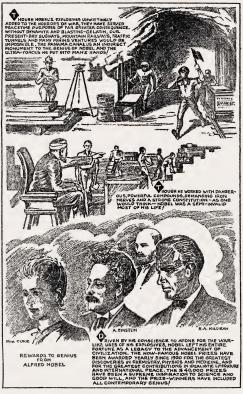


ALFRED BERNHARD NOSE

BORN 1853- DIED 1896

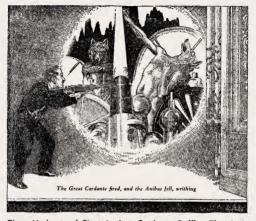


Next Issue: THE LIFE STORY OF HEINRICH



RUDOLF HERTZ, Famed Short-Wave Wizard

COSMIC STAGE



They Understand Einstein-but Cardante Baffles Them! A Great Illusion Unlocks the Gateway to Another World

By ROBERT ARTHUR

Author of "Universal Merry-Go-Round," "Murder in the Cards," etc.

MMETIMES it seems that Pate must have her little joke—as if she can not arrange even the most momentous happening without injecting her bit of ironic humor into it. Even when, for that taut and terrible instant, our whole world hung gently balanced on the brim of awful destruction.

The meeting of the International Scientific Congress of 1944 had gone badly from the start. Whether it was the mountain atmosphere—the meeting was held in Denver—or what, the whole six-day sessions had

been one continuous wrangle from beginning to end. Gustave Werner, whose daringly independent mind was continually surprising the other scientific brains of the International Scientific Society, was out of temper.

Scientific Society, was out of temper.

"Fools! Dolts! Idiots!" he shouted from the platform of the assembly hall. His face purpled. "To be talking of total disarmament and perpetual peace! Of a scientific oligarchy under which mankind will live in a world without weapons, even after I have read you my paper. I repeat, mankind will not always be mankind's worst.

enemy! We must prepare to conquer the forces of the unknown which someday will descend upon us!"

He waved his hand, clenched into a fist by the violence of his feeling. It was a sore point with him. The entire Congress had laughed at his ponderous, scholarly report on "A Consideration of Possible Future Invasion from Undetected Dimensions."

Professor Waldemar Brisingham, a lean and sardonic scientist with a typically British conservatism, gazed at Werner with something like frigid re-

sentment.

"My worthy colleague," he called out, "is back upon a topic this body saw fit to table earlier. May I ask him where this—ah—attack he so apprehensively anticipates will come from? From the fourth dimension? Or the fifth, perhaps or the sixth?"

Werner struck his fist into the other palm with a resounding smack.

"Yes!" he roared. "Maybe from any one of them! Certainly from one of the parallel states which my researches show co-exist with our world, some of them even in the same space with it, but in different vibrational strata. Any dolt who can not understand the meaning of my findings—"

The chairman rapped peremptorily, and Werner was forced to subside, puffing, and blowing into his seat the puffing, and blowing in his his seat the puffing. The Congress then blandly voted to go on record favoring the total dissermament of mankind. A committee was appointed to work out the best method of enforcing such a decision upon the world through the might of the solid union of International Scientists.

"Fools!" Gustave Werner growled into his red bristling beard as he tramped out of the auditorium with Jennings. "Dolts! They will not

learn-

ENNINGS grinned. He was happy
that the meetings were at an end.
Tonight at midnight they'd be taking
a strato-plane—the new strato-rockets
were still too unreliable for public use
back to New York. And in the morn-

ing Marcia Grayce would be on hand at the lab to greet him.

"And now," Gustave Werner continued grumbling, "we must attend a foolish exhibition of prestidigitation. Oh, if only I could convince them! But no, they do not listen. Instead they hasten off to rest their mighty brains by watching a magician, a juggler, a mountebank—"

But Werner was hardly being fair to the Great Cardante. The little illusionist was good. His show was diverting. It was made up of the standard formula materials used by stage magicians down the years—card tricks, disappearing young ladies, a little expert rifle and revolver marksmanship thrown in for good measure. But it was done deftly and swiftly. The Great Cardante might not be highly educated along scientific lines but he knew his own stuff.

The Great Cardante went through his routine confidently, working on the principle that the more intelligent the audience, the easier it was to fool 'em. It certainly seemed to be true to-

night.

Something of the same thought was in Jennings' mind as he watched from near the front of the theater. Beside him, even Werner's grumblings subsided. An occasional muttered "Dolts!" was his only outward sign of annoyance as he became interested in the skillful legerdemain. Secretly Jennings thought that the chief had gone a bit off the deep end in his new report. Let his always active imagination carry him away into the realms of pure fantas—

Terry Jenning's attention came back to the stage with a jerk. The Great Cardante had just finished a trick involving the apparent levitating, in defiance of gravity, of a large armchair with a personable young lady in it. Now the young lady dropped out, and with the chair still several feet above the stage, the smiling magician gave it a powerful shove that sent it flying toward the right rear wing.

Halfway there, it vanished abruptly in mid-air!

The audience roared with applause.

But the face of the Great Cardante himself registered the utmost surprise. He seemed bewildered, and even slightly frightened, as he stood staring in a dazed fashion at the point where the chair had disappeared.

"Midge!" He spoke in a sharp whisper above the music, his words carrying only a few feet to Midge Manson, his chief assistant who waited in the wings with the next prop. "What happened to that chair?"

Midge Manson gulped.

"Ain't it something new, Chief?" he asked.

"New!" the Great Cardante muttered, and restrained an impulse to

pass a hand across his brow.

It was so new that it baffled him.
Something had gone wrong. Then he

leaped back, his jaw dropping. The chair had reappeared!

As suddenly as it had vanished, it appeared again, moving swiftly through the air toward him, as if thrown, then crashing to the stage at his feet.

THE Great Cardante stared. It was tered. Now it looked like a Rube Goldberg chair, or something seen in the distorting mirrors in a Coney Island Hall of Thrills. Every part of it seemed warped, twisted, curved, stretched or shortened—as if it had been made of wax and had started to melt.

The great Cardante retained his stage presence with an effort. He stared hard at the point where the chair had vanished and then reap-

nonrod

He could just make out, against the black velvet of the hanging drape, but out on the open stage, a circle of almost imperceptible glittering light, perhaps four feet across—as if a ring of mica particles stood on rim there, reflecting the spotlights and foots.

It must be a trick Midge and the stagehands had arranged to embarass him—But at once he knew it was no joke. For Midge, mistaking his involuntary gesture of bewilderment for a signal, sent Grock out onto the stage for the next trick. Grock, the French Poodle did a clown act that never failed to bring down the house. He came bounding out took one leap, two, turned a back somersault which whired him against that circle of faintly glittering fairy light, and he vanished.

Something cold clutched at the great Cardante's heart. Great magician that he was, he sensed an alien force here. He cast a quick glance at Midge Manson. To Midge the dog was like a person, his inseparable com-

panion.

Midge looked frightened now. He could see that something had gone wrong, though he did not know what. He took a step forward, and Cardante flung out an arm to intercept him. Plung out an arm straight toward that slowly increasing circumference edged in tiny glints of light—

And his arm vanished to the elbow! The audience was quiet, tense. Beside him, Terry Jennings felt Gustave

Werner leaning forward.

"Terry!" the scientist whispered urgently. "Something-"

He stopped. On the stage, the Great Cardante had leaped backward like a cat touching a hot stove. And as he leaped, his arm once more became a complete member.

Cardante swung about to face the assembled scientists, and his face was strained.

"Please!" he said. "Something uncanny is happening here. I—I invite you gentlemen to fathom it. Stage manager! Extinguish all the lights. Perhaps we can see—"

The little murmuur that had started through the audience stilled. Abruptly with the sudden darkening of the interior of the theater, that circle of light glints became plaim—a circumference almost eight feet across now, its lower edge touching the stage, of tiny demon lights that twinkled and glittered like diamond dust. And the space within the outline was no longer blackpess. It was possible to see through it now from the darkened house, as through an open door.

A three dimensional picture slowly emerged—a land as fantastic as a mad-

man's nightmare!

AMED in the circle, like the impressionistic picture of chaos itself, was a mountainous landscape.
The mountains rose sheer, in granitetoothed ranks that seemed to bend
away backwards from the eye, as if
they were rubber and were being
pulled by force unimaginable.
Seemed to stretch away and turn in
upon themselves so that the eye, unable to follow them, became confused.

Red light bathed them—a sickly red light from two great dying suns overhead. Purple shadows crept like distorted creatures of indeterminate shape across the rocks, shifting and altering in a witches' dance as the twin suns revolved percentibly about each

other.

In the foreground of this outré landscape were two fantastic manlike creatures. They stood in a flat little valley that seemed to lead straight away from that circular opening on the stage of the Denver Municipal Theater like a narrow gorge. Beside them was a maze of strange machinery-a great crystal reflector that pulsed and glowed with shifting golden color imprisoned in quartz coils in front of it, a gigantic condenser taller than a man, on whose top a globe of purple light dimmed and flared with the regular beat of a living heart, a battery of tubes, crystalline cylinders, and generators screaming with a high whine almost lost to human ears.

The two beings stood there staring straight at the startled audience seated so comfortably in that dark and spacious theater. But it was obvious neither of them was aware of their audience. For they were staring with cold, expressionless eyes at a small black figure with a dunce cap strapped to its black head, prancing on two legs in a grotesque dance before them. Grock, the poodle, doing

his act!

The creatures were obviously men—but men bearing the same distorted relationship to men of earth that those mountains bore to earthly hills. They were nearly eight feet tall, slender to the point of emaciation, and grotesque by mormal standards. Atop their long necks, so perfectly joined to their

bodies as to preclude possibility of masks, were the hairy heads of dogs. Arms, long and sinewy and stringymuscled, ended in hands which were developed paws.

"Anubises! The dog-headed gods of the Egyptians!" Gustave Werner whispered tensely to Terry Jennings. "As they might have really been—"

The two were bareheaded, so that the short, bristly hair on their scalps was visible. But details of their bodies were hidden by swathings of heavy robes that shimmered in faint iridescence, as if radio-active.

There was no trace of expression on the cruel, canine faces as they watched Grock. The French poddle was turning somersaults now, pausing to yip bravely. Suddenly, though no sign of lip movement had been visible, the younger of the two spoke. And like a radio wave the sense of the thought came through the circle and reached the brain of every spectator in the theater.

"We have been successful, Aurac! We have broken through! See, there is a creature of the other world come through our opening unharmed!"

"It is a peculiarly repulsive form of life," the older answered mentally. "If it represents the height of intellectual advance within this level we are making contact with, even our sentimental Senior Council can have small hesitation in destroying its fellows."

THE younger took from his robes a cameralike object and peered into it. Instantly Grock froze in his tracks, trembling violently but seeming unable to move, as if some unseen power had gripped him.

"Yes," the being announced, "he has enough intelligence to understand rudimentary commands, but insufficient to work with tools. And that object which came through our vibration screen, and which I threw back, was tool-created. There is more intelligent life beyond our opening to be reckoned with."

The older Anubis shrugged contemptuously.

"What matter? What life, how-

ever intelligent, can stand before Aurac and his twenty thousand years of knowledge? I have promised to lead our people from the frozen desolation of our world of Zanor into a more suitable habitation. I shall keep my promise, if it means extermination of myriad creatures of primary level intellects."

For the first time the younger's dog-like face changed. It seemed to pale; a look of apprehension crossed it.

"But what of the Senior Council?" he asked swiftly. "You know the stringent orders against destruction it has ordered. If it but guess our mission—"

"Fool!" Aurac flashed. "Why do you suppose, Teros, I chose this desolate mountain spot? We have broken down the vibration wall between ourselves and the dimension I was seeking. The magic of Aurac's science has bridged the gap between two vibration universes once more. have but to project ahead of us a blast or two from our caloric guns, and the entire countryside for many miles will be desolate waste with nothing living left to harm us. Then we need but step through to begin preparations for our civilization.

Triumph glowed in Aurac's eyes.
"What can we do on an exhausted
world in an exhausted universe? Of
what avail to seek the conquest of
other planetary systems as badly off
as our own? Our vibration level is
exhausting itself. We must seek one
higher in the cosmic scale, still young,
with a life of millions of radiation
years ahead of it. So I have always
said, and so I have done. It lies before us, beyond that dark circle!"

Straight at the audience of scientists in the Denver Municipal Theater Aurac gestured, and a kind of mad-

ness seemed to seize him.

"For the second time I have broken through!" he flashed to his assistant. "That is how I knew—knew it could be done. The other time, a few thousand years ago, my apparatus was too crude. Now I am ready. We will sweep clean of all alien life this world I have reached through to, and create

a paradise for ourselves."

His eyes glared. His mouth moved with frenzy. From his robes he snatched an instrument the size and shape of a vest-pocket flashlight. It glowed with a point of brilliant light. And in that instant Grock no longer existed. There was a blinding flash, like a meteorite entering the atmosphere, and nothing remained but a depression where the poodle had stood an instant before.

Midge Manson moved now. Until this moment he had stood in fascinated horror, watching. Now he leaped forward.

"Grock!" he cried hoarsely. "Grock! The dirty murdering freaks! I'll—"

IS rush took him past Cardante's outstretched arms, through that circle of glittering light, straight toward the two unhuman men beside their array of apparatus.

Midge Manson burst abruptly into the other-world scene like a charging quarterback. His sudden dash took him almost up to the Anubises. Then Aurac calmly lifted a hand. The tiny point of light glowed again—and suddenly Midge Manson was not there. A burst of intense light, and he no longer existed. The flareback of heat of his consumption gushed in a hot wave out through the circle and into the great auditorium.

"Ha!" Aurac flashed. "That was a specimen of the higher life, Teros! That is the vermin we have to exterminate. Focus the caloric gun. We'll give the creatures a taste of heat before we step through. It's still opaque beyond our shunt, and we'll take no chances. Blast all life for a thousand miles beyond our screen!

"We'll make the beginning now. And the Senior Council can snivel in their beds about the sanctity of alien

life."

Coolly Teros, the younger, stepped to the glittering machinery beside them and swung down a bell-shaped cup of shimmering metal, pointed the flaring mouth of it toward the circle of darkness beyond which sat every scientist of note in the world. And in that instant the world tottered on the brink of destruction, hung suspended on the lip of a chasm of awful destruction-and no hand, no mind anywhere among those great brains could save it.

"An atomic disintegrator!" gasped

Gustave Werner.

And that, too, was a part of Fate's little jest . . .

In the very instant before Teros' hand fell, the Great Cardante moved. He had certain abilities. And he

knew how to use them.

On the table beside him were his rifles and revolvers-the paraphernalia of his markmanship act. One stride took him to them. He snatched up a rifle and aimed at that terrible circular opening into the other-world. His figure as he stood there was silhouetted against the reddish light from the hell-world beyond him.

The Great Cardante sighted his

weapon-fired.

And in his own world the Anubis, Aurac, fell, writhing horribly before he lay still on the cold rock.

Cardante fired again. And the assistant, Teros, clutched at his chest, a wide, unbelieving stare in his eyes, blood spurting between his many fin-

gers.

As he fell, his body toppled across the bell-shaped heat gun. It spun up-The intensity of light that must have lived within its flaring mouth was lost to those watching scientists, but its effects were plain. Something seemed to sweep across those distorted mountains in the background like a finger of doom. Rock ran like molten steel. A sawtoothed ridge miles distant bent inward, swayed, and toppled over into an abysmal gulf.

The lancing fan of force swept past the cliffs in the background, turning them into hissing steam and raging volcanic liquid that poured down in a mad tidal wave straight for that opening which gave upon the interior of the Denver Municipal Theater and all the assembled members of the International Scientific Congress.

Someone screamed shrilly, frightenedly. A giant wall of molten rock reared up, surged down upon that circular spot, flinging out streamers of hissing liquid toward it.

Then, just before reaching the opening, the edges of the catastrophic wave engulfed the shimmering machinery and the bodies of Aurac and Teros. In that instant, before doom could pour on through the hellish doorway between two worlds, the doorway was no longer there. It had been blotted out with the apparatus that had created it.

TITHIN the theater the lights came on again. And Gustave Werner, his fingers gripping Terry Jennings' knee until it seemed they would bite through to the bone, said:

"Terry! That was real. Real! I've got to speak to that man Cardante!" The Great Cardante reeled back-

ward into the wings, the smoking rifle still clutched in his hand, unable to find his voice. None of those backstage had seen what the audience had seen. It was Beckhardt, the publicity man, who had been out in front who came rushing up to him first.

"Oh, boy!" he cried, pumping the magician's hand. "Cardante, you were great! You wowed 'em! Panicked 'em! All the reporters saw it. How'd you ever think of it? A takeoff on the big argument of today's meeting. You've got those science guys out there walking back on their heels. The reporters are on their way back to interview you. You'll be world famous. Headlines like 'They Understand Einstein, but Cardante Baffles Them.' You're made, Cardante, you're made!"

The Great Cardante stared at him

dazedly. "That-that was no illusion." he gasped out finally. "That was real

hell!"

"Shh!" Beckhardt cautioned. "None of that stuff. It's the wrong Won't go. Just make the press boys sore. Tell 'em the truth. Tell 'em how you arranged it specially for this performance. If you want to get the right publicity, be world-famous overnight, that's the tack you got to take.'

"Tell them-it was one of my illu-

sions?" Cardante faltered.

"You don't think you can make them believe anything ridiculous, do you?" snorted the publicity man. "Here comes Werner, the big bug of the meeting. Don't forget, now!"

Gustave Werner, his eyes ablaze with excitement, fought his way through to the Great Cardante.

"Man!" he cried. "That was a real dimensional eddy, wasn't it? Wasn't it? Quickly! Can't you answer? I must know. I must! It's a matter of unbelievable importance. Have you any idea how it occurred—beyond what their thought waves told us?"

The Great Cardante gulped twice before he could answer. Then, quietly, he spoke. He couldn't try to make a monkey out of this eminent

"No, it wasn't real," he said with a wavering smile. "It—it was an illusion I prepared for the porformance. I hope you liked it."

ND so Fate had her little joke. For months thereafter Terry Jennings would catch Gustave Werner mumbling to himself at times, staring doubtfully at nothing at all,

shaking his head a little perhaps. But in the end Terry managed to laugh him out of his notion that the Great Cardante could have been lying that night. It was too ridiculous. Wasn't the Great Cardante one of the world's master illusionists?

So presently Gustave Werner turned his attention to other things, and his ponderous report gathered dust and was forgotten. And the world went ahead with her disarming, until no weapon of death was left anywhere, save in the hands of police

and sportsmen-

Nor was that quite the end of the jest, either. For the fame and fortune that the Great Cardante had been promised by his press-agent did not materialize. His audiences everywhere wanted to see the exciting illusion that had made him internationally famous overnight. When he could not give it to them, they abandoned him in anger. They said that his assistant, Midge Manson, was the creator of all the Great Cardante's illusions, and that he had run out on his master.

Funny, that's exactly what had happened.

Watch for

THE THREE PLANETEERS

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6

HAT'S quite an unusual cover we have on this month's issue of STARTLING STORIES!

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RULES

The closing date for this context is September 7, 1939. All entries must be mailed by milder the property of the context of th

Send us your letter today!

ENTER THIS CONTEST! YOU MAY WIN!



Thumbnail Sketches of Great Men and Achievements BY MORT WEISINGER

MILECTONES OF MADNESS

AUL EHRLICH squinted hopefully through his spectacles at the liquid solution that scintillated strangely in the glass vial. He was a killer. A merciless, cold-blooded murderer who annihilated his victims by the million. Whole legions of the enemy fell before his scythe-executed by shining, slender hypodermic needles.

For Paul Ehrlich waged a ceaseless war against deadly microbes. A war every bit as hateful as the one tyrannical despots have been waging for centuries against his Iewish ancestors. But Paul Ehrlich killed to save humanity

-not to humiliate it.

Ehrlich uncorked the vial of liquid before him, transposed its contents to the bulb of a hypodermic syringe. A swift, flashing stroke, and the needle

found its target in the ear of a dying laboratory guinea-pig. Ehrlich put away the needle, restored the animal to its observation

cage, and wondered.

Would his new compound work? The guineapig was dying by slow inches because of the deadly trypanosome microbes seething in its veins. His new compound had an element in it that might terminate the existence of these dangerous microbes-but would this chemical also doom the guinea-pig? Ehrlich didn't know. He could only wait.

That was the beginning-the first experiment.

A year later. Paul Ehrlich's lins tautened grimly. His practiced hands darted over the desk of his laboratory. A few grains of arsenic here. A scattering of dye there. Glasses clinked. Bunsen burners flamed. Now he was ready for Experiment Number Two Hundred! Perhaps this time his medical magic would produce results; perhaps the serum he had just concocted would lick the deadly germs and leave the body of its victim unharmed. Ehrlich hoped-and failed.

Another year. Paul Ehrlich turned the pages of his notebook, gazed sorrowfully at the results of Experiment Number Four Hundred and Fifty. Petri dishes, pipettes, microscope slides and beef broth cultures made a mossic of madness out of the shelves of his laboratory. Four hundred and fifty different arsenic compounds used—different dyes, new chemicals—but they were of no avail. Either they were ineffectual, or were highly successful-and merely killed the patient.

More experiments. More heartbreaks. Paul Ebrlich's experiments had now reached the six hundred mark. Six hundred experiments, each

one carefully noted in his papers, and each one a bitter failure. It seemed to the dynamic scientist that he had slain more bacteria then there were grains of sand in the world. Colonies of them, hordes of them, trillions of battalions. And still there were more-ever menacing



Paul Ehrlich

humanity, ever thriving in the human body. And the bacteriological Bluebeard couldn't stop them

Six experiments later, Paul Ehrlich paused in the middle of his operations and thought dark thoughts. The year was 1908-he must be fifty years old now-and he was still a failure. Koch, Pasteur-all the others who had worked and sweat and prayed and triedeventually they had met with success. And here he was, a laughed-at Iew in Germany, stumbling, blundering, ever searching for a super serum that would kill the trypanosome and its cousin in man, spirocheta pallida, the cause of the dreaded disease, syphilis.

Why was he to be denied his quest, Ehrlich beseeched the Fates. Or was his quest as fantastic as that of the madman. Ponce de Leon. who hunted a lifetime for a Fountain of Youth

that didn't exist?

But more than six thousand years of heritage spurred Ehrlich on. He came from a race whose indomitable spirit had crushed all adversity. He wouldn't give up-even if it meant ten thousand experiments. Until his fingers shook from palsy and he was unable to balance the delicate weights of his scale; until his eyes were so rheumy he could not detect the scurrying, fleeing virulent germs under the microscope, he'd work with all his heart and soul to realize his goal.

Experiment 606! Paul Ehrlich took his test compound, salvarsan, identified by the name "Dioxy- diamino - arsenobenzol - dihydrochloride," an uncanny combination of various chemicals, and injected it into the blood stream of his luckless victim, a dving mouse,

But this time the victim was not so luckless! The shot of Ehrlich's newest serum-which was to win him the Nobel Prize-destroyed the thousands of killer germs lurking in the mouse's blood, eliminated every single trace of them! And it was perfectly harmless. It was safe, The poisonous ingredients in this new serum had no ill effect on the mouse. It became

Six hundred and six experiments-and now success! Paul Ehrlich shut his eyes and saw a long, dark road behind him. Six hundred and six milestones dotted that road-landmarks of

healthy again, completely normal.

despair, discouragement and failure. But the six hundred and sixth milestone pointed a fork in the road-a shiny, white path for humanity in the future.

THE LAST THEOREM

PROFESSOR PAUL WOLFSKEHL knew how to use chalk. He wrote hurriedly for several minutes on the two blackboard rectangles in the University classroom while his students watched in curious fascination. When he had finished, the paneled surfaces were sprinkled liberally with mathematical figures, algebraic symbols, and various equations,

stiffened fingers, and faced his class.

"So," he sputtered, "I will make a prediction. Mathematicians will never be able to square the circle! They will never be able to trisect the angle! And they will never be able to offer a proof for Pierre de Fermat's Last Theorem!" Not a student in the classroom at the Uni-

versity of Gottingen stirred. Throughout the deep silence Professor Wolfskehl glared blackly. as if waiting to annihilate the first scholar who dared challenge his prophecy.

Finally one student, bolder than the rest, or perhaps less sleepy, opened his mouth.

I have studied Fermat's Last Theorem, sir." the pupil ventured timidly. "While Fermat offered no proof for his Last Theorem, isn't it true that mathematicians to this day have failed to disprove Fermat's proposition?"

"Dumkopf!" roared the German professor. "Let us suppose that a man says that the world will end in two thousand years. Because we can't prove that it will not end at that time, does that mean the original statement is correct? Nein! Fermat was a genius. But he was hopelessly wrong about his Last Theorem.

The student persisted. "But, Herr Professor, since 1637, when Fermat advanced his theorem, only one mathematician, the famous Carl Friedrich Gauss, has stated that a proof for Fermat's Last Theorem will never be found. He-"

The professor interrupted. "And I am not a mathematician?" he bellowed. "Fool, today I am depositing one hundred thousand marks with the trustees of this University, to be

Professor Wolfskehl put away the shrunken stub of chalk, exercised his awarded to the first person offering this impos-

sible proof. One hundred thousand marks!" As Professor Wolfskehl concluded his startling announcement the bell rang, signifying the end of the lecture. The students rose ex-



Pierre de Fermat

citedly to their feet, collected their books and scattered over the campus, to report the news

of the hundred thousand mark prize to their

fellows.

Åtone in the classroom, the methematics instructor turned wearily to the blackboard. As the x's and n's of the algebraic formulae and equations used to explain Fermat's Lest Theorem met his gaze, Professor Wolfskeltl's thoughts whited him back into time some two hundred and seventy-one years, the day of such eminent methematicians as Descartes, Newton

-and Fermat. . .

Flories de Ficinat looked stonily into space. Ilutrient cellutation shoulded his imid, caused his forehead to furrow in deep concentration. He was on the track of a new theorem! Mentally, he reviewed the proof in his mind, went that the stone of the

Fermat reached for his notebook, in which he always recorded the results of his meditations. He glanced wryly at the narrow margins on the

paper, then wrote as follows:
"It is impossible to separate a cube into two cubes, a fourth power into two fourth powers, or generally any power above the second into two powers of the same degree: I have discov-

ered a truly marvelous proof of this theorem which this margin is too narrow to contain. . . ."

The afternoon sun poured its molten heat into the classroom and roused Professor Wolfskehl from his reveries.

"Ach," sighed the professor to himself, "we know that Fermat was a scrupulously honest man. Whenever Fermat stated that he had proved something, the statement has always been proved. He was a brilliant man. And we proofs in the margins of his papers. Maybe... maybe he was right. Maybe he did have the proof in his mind, and for more than two

hundred years mathematicians have not been clever enough to find the missing solution."
The professor shrugged to himself as conviction dispelled doubt. "Nein," he told himself. "I am convinced that Fermat was mistaken, that he had deceived himself. I will

leave one hundred thousand marks to anyone who can find me a proof. Who will come to claim it?"

It is now more than three centuries since Fermat aunounced his Last Theorem. It still remains unsolved. And Professor Wolfskehl's prize? It is doubtful if anyone will ever with to claim it. The inflation after the World Wan has reduced the value of this prize to a fraction of a cent. Which may be all the proof is worth. Or is it?

THE LIGHT-TRAPPER

SOME scientists battle to lock the molecule in its mad, eternal orbit. Others to capture a deadly, virulent bacillus under the microscope. But Louis Daguerre's quest was different. He labored to imprison light!

To trap light! Louis Daguerre sighed heavily to himself. "Mais out, but I have already done so!" he breathed aloud. He fingered the sheaf of franc notes on the table. There was much money there-enough to pay his rent, buy him good food, choice wines. And he had received all this money for his

excellent ability in capturing light—on canvas!

For Louis Daguerre was a fine artist, one of the best in the Paris of 1830.

Few of his fellow artists were as popular as he, the master of the panorama,

and the creator of the diorama. His perfect skill with the brush and canvas was a thing to be envied. Ultimate technique—

and the creator of the diorama. His was a thing to be envied. Ultimate technique—he owned it, as the effortless, picturesque paintings that flowed from his wizardry attested.

But Louis Daguerre, the Frenchman, was not content. He gazed restleasly to a spot on his deak beyond the sheef of banknotes. Silver salls, paper sensitized with silver nitrate, a stalls, paper sensitized with silver nitrate, and one other miscellaneous scientific items like tered the surface in wild disorganization. For Louis Daguerre wanted to trap light in a new way—on a photograph. It was ten years since he had been striving in every imaginable way to light.

The camera—Mon Disu, there was an invention to rival the best artist in the world, the work of a thousand Titjans and Rembrandts! The camera did not fabricate; it was as trutful as a mirror. A dozen artists painted the same scene, the same person, a dozen different ways. Put the camera—it told only the facts. The Frenchman shrugged his giant frame and sighed again. Alas and alas, but of what use was this so marvelous invention, the camera? For it described images only on silver nitrate paper—and those images were too faint to be

of value.

Louis Daguerre stood up, buckled his belttightly. Some day he would find a way to develop those faint images that the camera reproduced, develop them so strongly that every detail of light and dark would stand out in sharp relief. If it took him another ten years, if it meant working all day with the brush, all night with the camera plate, he would succeed!

With indefatigable patience Daguerre worked. He studied the experiments of the Swedish chemist, Scheele, concerning the action of light on silver salts. He consulted the notes of Sir Humphry Davy, who produced silhouettes of ferns and engravings upon paper censitized with silver, nitrate. But nowhere

could he find a process for fixing the print on paper so that the image could be developed in

By the grace of persistence, chance, God. and scientific observation, in 1835 Daguerre discovered that a silver plate exposed in the dark to the vapor of iodine becomes exceedingly sensitive to light. That was his starting point. With these magic silver plates he was able to reduce the time of exposure to three minutes for outdoor objects, and he could photograph the interior of rooms in thirty minutes.

But still the images were faint. He had no satisfactory method of developing them. It was like a mirage. The feeble, weak lines of light on the plate seemed to mock him. The Frenchman swore bitterly. Nom de nom de chien, he would yet snare this light, so like an elusive

strong black and white.

The days sped by. One evening, exhausted after a long day's work, Daguerre looked wrathfully at the silver-jodine plate on his table. All week long he had worked on some new com-pound—and still no result. He picked up the plate, almost obeyed an impulse to smash it to the floor. Trial and error-trial and sweathow he had worked! But never any success. not the slightest ray of hope. Trap the light? He might just as well try and trap a rainbow!

Daguerre strode over to his cupboard, placed the plate within. He slammed the door shut. At least the confounded object was now out of his sight. He reached for his hat and coat, gave a last despairing sigh, and walked out of the

room, into the night.

Ah, the fresh air was so good, so sweet. And that moon—so beautiful . . . it looked as if it were made of silver. Silver! Daguerre kicked a pebble in his path. There it was again. Well, he could never forget the laboratory. He was a scientist, and the chances were he'd be right back on his experiments the first thing the next morning.

And so it was. The next day Daguerre ate a hearty breakfast, then reached for the plate in the cupboard, ready to continue his experiments. He studied the plate. Then Daguerre rubbed his eyes. He looked at the plate again, then rubbed his eyes some more. The plate was developed! A perfect picture appeared on its surface! A picture of light and dark shades, all in their proper natural proportions. He had trapped the light!

But how? How had it happened? What was the solution of the mystery which had baffled him for years? Could he do it again? Please, God, could he repeat this miracle?

That evening Louis Daguerre placed another

plate in the cupboard. All night he stayed awake. Countless times during that long vigil he felt an irresistible urge to open the cupboard, discover what secret—if it was a secret—was transpiring there. And the next morning—he had another perfect image!

It was maddening. What caused this Alad-

din-like result?

But Louis Daguerre was no fool. A true scientist, he knew that there is a natural explanation for everything that happens. He searched inside the cupboard. A variety of chemicals stood there. Daguerre decided that some vapor from one of the chemicals must have produced the miraculous change. One by one he tested the substances.



Louis Daguerre

At last he found the answer. It was the vapor from a dish of mercury that had caused the effect. Daguerre discovered that he could develop an exposed plate by placing it in the dark, face down over a dish of warmed mercury, Those parts of the plate upon which the rays of light had focused absorbed the mercury vapor in exact proportions to the intensity of light which had affected them.

Louis Dacuerre gave his discovery to the world, and the French Government rewarded him with a pension of six thousand francs a year for life. The Frenchman had finally trapped the light-and few men have ever trapped the same thrilling light that must have glowed in Louis Daguerre's eyes when he be-

held the first photograph!

Next Issue: More THRILLS IN SCIENCE Featuring

ALBERT ABRAHAM MICHELSON

-Who First Measured the Velocity of Light AND OTHER FAMOUS SCIENTISTS

THE MISTY WILDERNESS

By JOHN RUSSELL FEARN

Author of "Death Asks the Question," "Beast of the Tarn," etc.



Warm because Uranus still possessed vast internal heat reserves, constantly seeping out on the day side in the form of terrific geysers and mud eruptions. The air, mainly inerargon, but with a thirty percent overgen content, was breathable enough to an Earthling.

Selton stepped outside his vessel on to the spongy black soil and glanced at the upper-level clouds—whirling, dense to London fog consistency, kept incessantly on the move by the eternal higher winds sweeping in from the nightward hemisphere. Down here at ground level the air was hazy, overhung by that low, shifting ceiling.

He moved along slowly, then paused as the other ship's airlock swung open, casting forth a long diffused fan of light.

The powerful figure of the man he had followed came slowly into view, attired in the customary leather jacket and breeches, gun holsters at his sides. The instant he saw Selton his hand flew to them—but Selton was quicker.

E strode up, gun leveled. "Take it easy! One false move and I'll wing you."

The man raised his arms as Selton relieved him of his guns. Selton looked into cold blue eyes set in a brown masterful face. The chin was square, the lips half curved in a contemptuous smile. But the hair—that was enough! Absolutely as black as space.

"What have I done?" the prisoner inquired coolly.

Selton stared at him. "Done! You steal all the cargoes of the freighter ships on the Jupiter-Mercury run, then ask what you've done? You're an outlaw, running around in a private ship so you won't be detected. I've followed you all the way from the Jovian moon area."

He paused and studied the man's coal black hair. "Whoever called you Eboni was right," he murmured.

"Do you mind if I put my hands down?" Eboni asked politely. "Now that you have disarmed me?" "Sure-sure; you can lower your hands."

Eboni did so, but so rapidly that he took Selton right off his guard. In one tricky movement that remotely resembled ju-jitsu Selton found his gun flying out of his hand.

A stabbing pain shot the length of his arm and he found himself sitting flat on the wet ground staring up into that resolute face and his own leveled

"All right—get up!" Eboni snapped.
"Ouick!"

Selton rose slowly, muttering under his breath. Still covering him, the outlaw plucked out the Space Service man's remaining gun and threw it into the mist. He retrieved his own weanon before discarding the second.

"Now, listen," he breathed. "I know you followed me all the way from Callisto, so you could stop right with me. Your idea is to waltz me back to Earth, but you've got more ideas coming. I'm heading for the north of the unexplored belt, and if you know anything about this planet, you'll know that that'll take us to Equator Peaks."

Selton started. "But you can't do that, Eboni! That means going across unknown territory. Besides, the seasonal change—"

"Shut up!" Eboni eyed him grimly, "What's your name?"

"Dud Selton-Space Way Service, V Detachment."

"Cub sleuth, eh?"
"What of it?"

"Oh, nothing. Anyway, your mother had the right idea when she gave you that first name. Now let's go!"

The outlaw leaned inside the airlock of his vessel and switched off the lights. Selton regard him doubtfully, then tried again.

"Look here, Eboni, be sensible! How do you expect to get back here? You ought to know that the Uranian pole has no magnetic properties, and therefore a compass is useless—"

Eboni thrust out his powerful arm and revealed a small object like a watch upon his wrist. "This is a magnetic indicator, Dud—" He grinned again at the abbreviation.

"The needle swings to a magnetic plate in my machine. I can't fail to find my way back. Since you won't be coming back with me, what are you worrying about? Now get going,

HEIR feet made no sound in the sodden wilderness as they began to move. The broad soles of their boots sank half an inch into the

ground at every step.

Had the gravity been compatible with the 31,000-mile diameter of Uranus, it would have been an utter quagmire; but with a density of only .27, effort was almost similar to that demanded on earth, and therefore saved them sinking any deeper.

After a while Selton asked: "What's the idea of heading for Equator Peaks? Hide-out, or something?"

Eboni did not answer immediately. His powerful face was still curiously amused in the faint light sifting through the upper-level clouds-a light cast by a sun with only 1/360th

of the power on earth.

"Can you think of a better place?" he asked presently, "A world wrapped in fogs, a vast expanse of crazy, slipping landscape, a veritable deathtrap to the uninitiated. Where better to have a hide-out than in the foothills of Equator Peaks?"

Selton's face hardened a little. "Well, thanks for telling me that much, anyhow. I can use it in my evi-

dence against you."

The outlaw said nothing, and they went on silently. When they were some distance from the ships, alone in the dim, misting twilight, he lowered his guns and slipped them into their holsters.

"We're far enough from the ship by now for you to lose your way if you try to escape," he explained calmly. "While, if you attack me and gain possession of this compass it won't do you any good because it will only work on my wrist. It's tuned to my particular electrical wavelength and anybody else's would only jam the thing. Anyway, I'm quick on the draw-as you may have heard."

"Don't worry-I shan't attack you," Selton smiled coldly. "I want to find the location of this hide-out of yours before I try running you in. The only point I don't understand is how you find your way to the Equator Peaks in a landscape like this."

Eboni glanced upward. "Try using your brains," he sneered. "The upperlevel clouds move in a direct line from the Equator Peaks because of the colder winds sweeping in from the nightward side. By following their line of movement it's a cinch. They're

not very far from here: I know that," Selton pondered over that, Uranus, with its queer axial tilt, had forty-two years of night and forty-two years of day. The heat of the sun affected the atmosphere but little, but it was sufficient to raise the temperature on the

sunward side some fifteen degrees. This warmth, in contrast to the colder winds from the nightward hemisphere, produced the upper-level clouds and eternal moisture drifts. In Hemisphere Chasm, indeed, central passway through the Equator Peaks to the night side, there were perpetual electrical storms, moving left to right for forty-two years, then right to left for another forty-two.

"You certainly picked a great planet for a base," Selton grunted as they squelched along. "How do you know that your hide-out will even be there? The Uranian surface is always chang-

ing and sliding and-" "Wait!" Eboni interrupted him

sharply, halting, "I hear something!" They both peered into the ghostly expanses. Selton, too, heard it nowa soft hissing noise like water on the verge of boiling. Abruptly he jerked his head up and stared at a rapidly swelling bubble in the ground not two hundred feet away.

thing like that before. Looks like a

bubble of sorts."

E stopped short as the bubble suddenly reached maximum size and burst with a sharp pop. The air instantly became filled with warm, showering mud-mud that fell to the ground and wriggled! Eboni took a step back, staring down in disgust on scores of four-inch objects writhing in the ooze.

"What the deuce are they?" he

growled aloud. "Organisms, of sorts." Selton said as he looked at them closely. "Too big for animalcules, I'd say-unless everything's big on this world. Lowform organisms, evidently spawned in the boiling water below surface, Looks as though life here likes things

"That bubble erupted them, then?" "Apparently so-maybe a natural way of starting them off in life on the surface." Selton stopped and looked at Eboni sharply: "Say, what's the idea of asking me all these questions? You ought to know Uranus even better than I do!"

"Why? You don't think I spend my vacation here, do you? I only know the outstanding geographical facts; the local fauna's as big a mystery to

me as to you.'

Eboni broke off and glanced at the fast-growing disklike things in the mud. "Better move before they get really big," he finished anxiously. "Come on.

Another mile's progress brought little change in the landscape-if a sloppy black magma with normal and treacherous surfaces lying entirely undistinguished could be called landscape. Time and again weird bubbles rose, swelled and popped, hurled their disgusting life through the dank air.
"Dud. I don't like this!" Eboni's

voice was serious for a change. "I never struck things like this before on Uranus. Look at that one! Nearest thing to an umbrella I ever saw!"

He was right in that. An almost full-grown specimen resembled an open umbrella without the stick, the rib ends corresponding to viciously clawed hooks.

The whole thing was principally a gigantic flying object, membranous, and already quivering for flight. Even as the two stood watching, it suddenly took off from the wet ground and went sailing into the mists.

"Towards the Equator Peaks," murmured Selton, glancing up at the cloud rifts. "I wonder why?"

Eboni reflected. "Is it possible, I

wonder, that Uranus life is migratory? Surely it will be with a fortytwo-year day and night. We've about arrived at the change-over. Night is coming down here and day is on the other side. Suppose these creatures are the spawn left in the ground from the last migration, and that nowby some natural process-they are born and vomited out of the mud to make their way to the daylight side?"

"It's an idea," Selton said, pondering. "In any case, I don't see it matters much. Our main concern-or yours, is to reach this hide-out. Then

I'm going to run you in."

"You think so?" Eboni smiled twistedly, "You'll never do that. Later on you'll find out just why,"

As they moved on again, the evidences of the great planet's ponderous changings from light to dark became more evident. The drenching vapordrifts from the distant Equator Peaks began to thicken; the upper-level clouds no longer moved definitely from the nightward side.

Instead they were criss-crossing each other in dirty, smudgy bands, blurred with fantastic green lights as the far distant sun cast not direct, but oblique rays, gradually deepening to twilight as the clouds piled thicker.

"If we don't find this precious place of yours before night we're going to be in a lovely mess," Selton remarked presently.

"Real night won't drop for eighteen months yet."

"At this rate it will take that long," Selton growled. Then in a sour voice he demanded, "Why didn't you fly there in the first place and save all this trouble?"

"Because I had a reason, Besides-"

BONI broke off and stopped walking, swung around as a sudden tremendous whirring sound came from the mists to the rear. With demoniac speed an umbrella organism came hurtling into view, flying close to the ground.

It was sheer luck that the outlaw happened to be in its way. Immediately its frightful claws spread defensively, hooked themselves more by chance than design in his tough leather jacket. He was jerked into the air, struggling desperately. Then he dropped again to the accompaniment of a sudden tearing. He reeled to his feet with his iacket in shreds.

"Hurt?" Selton demanded, stumbling forward through the reek.

"No, not much." Eboni seemed unconcerned for his own well being; his eyes were staring at his wrist. In dead silence Selton stared, too. The wrist compass had been smashed by Eboni's fall to the ground.

"Lost!" Eboni breathed at last, dragging his tattered jacket together. "Lost in this wilderness—we can never find the ship again. The only hope now is that we can get to the hide-out. I've a radio there; we can call scout vessels on the main service ways. It'll mean giving myself up—but I guess I know when I'm licked," he finished.

He turned slowly, started on a little ahead. Then without the least warning he was suddenly thrown violently into the mud by a terrific vibration of

Selton stared after him uncomprehendingly. Then he noticed that the entire area around the outlaw was shifting and sliding madly, convulsed

the ground.

within itself.

"Quick! Jump for it!" he yelled.

"It's a mud eruption!"

He dashed forward, dragged Eboni to his feet, but by that time it was too late. The square on which they were standing was separated from the mainland by several yards, was floating like hard scum on the swift-moving surface of a ground displacement.

Uranus, with its warm interior, particularly on the day side, together with an insubstantial crust was continually breaking up in much the same way as earthly icefloes at the spring thaw, the hardened mud floating on the surface of a sudden new-born liquid mud current below.

So the two, outlaw and spatial policeman, now found themselves clinging to each other for dear life, swept along on their muddy raft through the dull, lowering haze.

"Why the blazes didn't you jump?"

Selton demanded, glaring. "Heaven knows where we'll go now! If we get thrown into one of the boiling water areas you know what that means!"

"I couldn't jump because I was stuck." Eboni growled. "See!" He pulled his right foot with an effort out of the cloying mud to demonstrate. "We'd better keep our feet moving if we don't want to sink through this overgrown mud pie."

Selton kneaded his feet up and down. It felt like tramping on a giant sponge. Still holding unsteadily on to each other they stared anxiously ahead into the curving wreaths. The upper-level mists now almost touched

the ground.

"It's the seasonal change all right,"
Selton muttered. "The mists show it.
For one thing the upper-levels are
slowly veering round in the opposite
direction. That means they're starting on their right-to-left forty-twoyear movement through Hemisphere
Chasm. The lower mists are of course
caused by the cooler air sweeping in
and condensing with the warm
ground—"

"You're telling me!" Eboni interrupted him bitterly. "I've lost my sense of direction being carried around like this. Since the upper drifts are changing, too, we don't know where we are."

"If we stick on this raft we may

drift to better regions. May towards the Equator Peaks." "How do you make that out?"

SELDON answered calmly. "Observation," he said

"Observation," he said, "Tve noticed that everything is drifting one way — upper-level mists, mud drifts, the fog, and this mud raft. It means that the blocked-up areas on the night side are thawing out. Formerly impassable barriers have opened up, and the whole surface is moving in that direction. Probably Hemisphere Chasm will be a torrent of disgorging mud, animalcules, giant organisms, umbrellas, and so forth."

"Maybe you're right." Eboni pondered a moment and gave a shrug, "Not that it helps much in any case. We'll perhaps escape this thing only to die of starvation. This planet hasn't got a single edible thing on its whole surface—unless there's some food stored at the hide-out"

stored at the hide-out."
"Why, don't you know?" Selton de-

manded in amazement.
"No." The outlaw said nothing

more, looked anxiously round him. The mud raft seemed to drift for

an interminable time. Now and again the two could feel it sag as some portion of its underside gave way, but in the main it held firm, bobbing along the surgings of the great mud river down which they were being carried.

Occasionally the clinging reek lifted slightly and enabled them to see barren stretches of the great drift, moving like a dark brown edition of an Arctic thaw, traveling with everincreasing speed towards the Equator Peaks which, so far as the stranded two could judge, could not now be shouted hoarsely. "The lightning's

over Hemisphere Chasm!"
"You're right," Selton breathed. He
turned suddenly. "In that case this

is where we'd better part company with this sponge. Point is, how?"

"Jump," Eboni said laconically.
"No other way—here goes."

He drew himself together, eased his feet from the disk, then leaped outward with all his strength, landed in the midst of the filth. Selton only hesitated a moment, then followed his example. He sailed through the air, crashed heavily into soft, slimy ooze.

Dazed, his mouth full of mud, he got up. He sank to his knees in the stuff, but touched bottom. The main mud flow was some ten yards distant, a vast sweeping wall of brown pouring into Hemisphere Chasm. The mud raft was already out of sight in that mad cataract.

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very far distant.

Occasionally a buge umbrella organism would sweep down and fly on ahead in the direction of the drift. It could only mean that Selton's guesswas right. At the Uranian seasonal change everything change places; in particular the spawn of the previous season was ejected and grew swiftly to enable it to move to the summer region.

"Dud, do you hear anything?" Eboni asked at length, easing his strained body a little to turn. "Sort of

bumping and roaring?"
They were both silent for a moment,

listening to the slowly growing concussions and thunderings booming through the murk. As the raft floated onwards there were distinct signs of flashings through the fog at remote heights.

"It's the Equator Peaks!" Eboni

Staggering forward, Selton helped Eboni to get to his feet. He spluttered disgustedly.

"If mud improves beauty, I'll take the world's prize after this," he gasped out. "Good job we fell in it, though broke our fall."

They moved forward out of the slopping ooze and came to the firmer ground at the immediate base of those vast ramparts. As the mist ahead of them thinned slightly they caught their first glimpse of something shining like dull silver—something long and graceful, delicately pointed at both ends.

"It's—it's a space ship!" Selton cried hoarsely. "Eboni, a space ship —here! How do you account for—"

E broke off. Eboni had pulled out his guns and was examining their muddy mechanisms. Finally

he nodded to himself and Selton waited grimly. The Space Service man's emotions changed to surprise as Eboni turned toward the opening of a cave outside of which the space machine was lving.

Slowly the outlaw moved into the cave, his feet echoing in the hugeness. Within, everything was black and dark. Selton fumbled in his saturated kit and finally pulled forth his elec-

trode lamp.

To his satisfaction it worked the instant he pressed the button, casting forth a brilliant fan of light round the cave's great area. Upon every side of it, stacked to the lofty ceiling, were all manner of materials, most of them recognizable as crates and goods stolen from the space freighters.

He lowered the beam to turn to Eboni, then he stopped in amazement as he beheld a figure sprawling on the floor-the figure of a man, his coal black hair covered in dirt, his arms

grotesquely outflung.

"What the-" Selton stared at him in bewilderment, then dropped to one knee and made a quick examination. "He's dead." he proclaimed briefly.

"Venusian fever by the looks of it. Been dead several Earth days. But

who in blazes is he?"

"Eboni," said his companion quietly. "A pity he ended up so tamely. I knew he had Venusian fever, but I hardly thought it would kill him so soon.'

"Eboni? Then - who are you?"

Selton gasped, leaping up.

"Me?" The powerful, mud-splashed face broke into a grin, "Well, you came up to me when we landed and accused me of being Eboni on account of my black hair, so I let it go at that. I could see you were new to the job and very eager, so I let you have it.

"Thought it might be a good idea to teach you a lesson. I'm an old hand. Bruce Anderson's the name-Space Way Service, W detachment. Next to vours."

COMING IN THE NEXT ISSUE

THE FORTRESS OF LITOPIA

A Complete Book-Length Novel of The Citadel of Science

By JACK WILLIAMSON



THE LIFE STORY OF HEINRICH RUDOLF HERTZ IN PICTURES

THRILLS IN SCIENCE

PLUS MANY OTHER STORIES AND FEATURES



WELLMAN'S MASTERPIECE By W. LAWRENCE HAMLING

By W. LAWRENCE HAMLING

I do not store write in to the editors of a magazine—but this is one time that I could not result. I am writing this letter the ideal of the state of

oped in all its phases of adventure, intrigue and formulation. The only thing that was slightly underplayed was romance, which, cause I am a firm believer that s-f has no room for developed romance, and scientific selence could have been played up a little more. This, however, does not defixed from my opinion of the faile. All I can say is, the provided an ending whereby a sequel can be written. But "Glours From Exer-

can be written.

I really believe that "Clants From Eter-nity" is the best story that has been pul-rently is the best story that has been pul-led in the story that the story of the Black Flame" cannot even attempt to com-"Black Flame" cannot even attempt to com-complete the issue as far as the other stories are concerned, but I shall do so soon.—2609 Argyle St., Chicago, Ili. I really

CARLYLE AND QUADE PLEA By GEORGE AYLESWORTH

'm breathing again. "Giants From Eter-

THE ETHER VIBRATES—with the letfiction. Aid your voice! This department is fiction. Aid your voice! This department is a gabile robus devated to your opinion, anxious to fear from you. Remember, this is YOUR mugnitie and is planned to fulfill is YOUR mugnitie and is planned to fulfill stories and departments you the—and which fail to click with you. A knower's as we'll print as many of your letters as pos-sible the property of the property of the print as many of your letters as pos-sible that the property of the property of the ETHER VIBRATES. STARTLING STORIES, 20 West Voice, N. V.

nity" is Maniy Wade Wellmans best story in a long time. It and we mad not and skill that he mad for the desired that the characterization, and like most of Wellman's stories, it was well written.

The many stories, it was well written.

The duest for a reprint and "Robot A.1" was very good, though I don't thank a short story. The Guest Editorial by Willy Ley was into the control of the control

S?—Box 508, Mackinaw City, Michigan, (Numerous letters from readers clearly (Numerous letters from readers clearly in-dicate that the majority are opposed to the incorporation of THRILLING WONDER STORIES characters in the pages of S. S. A Carlyle-Quade novelet, "The Energy Eaters," is featured in the October issue of T.W.S.—

HAMILTON A DOUBLE HIT By Katherine Marcusson

By Katherine Marcusson

I have just a finished the fourth issue of
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CLASSICS FROM THE PAST By HERBERT VINCENT ROSS

By HERREN VINCENT ROSS

If think it a about time I dropped of the
new s-f magazine, STARTLING STORIES,
First, a s-f magazine which is going to give
here to be seen to be seen to be seen to be
lection of "The Black Plane" by the one and
only Stanley G. Weinbaum was a happy
standing feature is that we are going to set
the oid s-f classics reprinted in the "Hall of
of s-f a chance to see what designing the set
frame of several years see, and to compare
and to compare years see, and to compare fans of several years sgo, and to compare them with what is being turned out today. For myself, I think the stuff of a few years

comments remain the country during out today, back was more entertaining. THRILLS IN SCIENCE is a swell feature and very instructive. Jack linder's stip is fine and very instructive. Jack linder's stip is fing, what an indictment of Nani Fascism it is that a man like Sinstein should have to the state of the state of

(Continued on page 125)



The colossal scoop had cut a vast lane of destruction through the city

ECAUSE Dr. Howard has asked me to prepare a concise account of the coming of the space visitors, I, Stanley Ransome, have tried to write a simple record of my own contacts with them.

It was late in June that I first learned of the affair, through Dr. Howard himself. Dr. Jason Howard was holder of the chair of Aeronautical Science in Gotham University, and his contributions to the progress of aerial navigation had brought him success in both scientific and commercial circles. For two years I had been his assistant.

Toward the end of that particular June afternoon he came into the laboratory where I was testing the tensile strength of a new alloy, and handed me a folded newspaper.

"You haven't seen this, Ransome?" he questioned, "They're shouting

them all over the city."

"I hope you haven't ruined a completely good test to call my attention to the latest murder," I jested, as I unfolded the paper. But when my eyes took in the import of its black headlines my smile vanished. They shrieked their message in the tallest available type:

HUNDREDS SLAIN IN IOWA VILLAGE BY CATACLYSM! MANNLERTOWN IS SCENE OF MYSTERIOUS HORROR!

The story below the headlines described what was then known of the eatastrophe which had occurred just before dawn of that day. Mannlertown, an agricultural center of considerable size in eastern Iowa, had been awakened a short hour before daylight by a colossal grinding and roaring sound that was coming from the east.

Before the startled, half-awakened people had been able to leap from their beds, however, the thing was upon them. It was horror, earthquake, annihilation, all in one, driving across the town with immense speed. A terrific crashing of shattered buildings spread through the community, and for an instant the gigantic grinding roar seemed receding westward. Then it stopped completely.

It was several minutes before anyone in the stunned city ventured out into the streets, half-curious and halfterrified. But those who finally did so were paralyzed by astonishment and terror. For a colossal path of destruction had been cut straight across the city's northern section.

It was as if a gigantic trench or canal had been gouged out of the land by a superhuman instrument, being over a quarter of a mile in width and almost as great in depth. It began in an open field three miles east of



Editor's Note: Some stories are forgotten almost as soon as they are printed. Others stand the test of time.

stand the test of time.

Because "The Space Visitors," by Edmond Hamilton, has stood this test, we are nominating it for SCIENTIFICTION'S HALL OF FAME.

In each issue we will nominate—and reprint
—another favorite of the past.
Will you vote for your favorite? Write and
tell us what it is.

We hope in this way to bring a new permanence to the science fiction gems of yesterday and to perform a real service to the science fiction devotess of today and fomorrow.

Mannlertown and ended in a thinly settled suburban section a mile westward.

Houses, people, trees, fences, roads—everything that had lain in the track of the unknown destroyer had vanished as though it had been whirled into space, and there lay open to the sun nothing but this vast wound in the Earth's surface!

What had caused this cataclysm? No answer could be definitely made, but the geologists and other scientists consulted regarding the thing were in general agreement. It could only have been caused, they stated, by some giant meteor that had grazed the Earth's surface and gouged this great scer across it in passing.

WHEN I had finished reading I looked up at Dr. Howard, sobered by the horror of what I had just read.

A Sword of Damocles Hangs Over Earth!

"A terrible thing, surely," I said, and he nodded somberly.

"Just how terrible, is not yet realized," he commented.

"Why, you don't doubt that it was a meteor's work, do you?" I asked.

"That great gouge-

He shook his head, "Who can say? But if a meteor of giant size did it, where is the meteor? They do not graze Earth and then vanish, Ransome."

"Maybe not," I said doubtfully, "but in this case the scientists all seem pretty sure. And after all, what other possible explanation for the thing is there?"

To that he did not answer, though I could see that he was unconvinced. So I was not surprised when Dr. Howard left for Mannlertown that night by a fast Chicago rocket express. To me,



Edmond Hamilton, the author of this story

as to others, he said only that he wished to make a brief examination of the scene of the disaster with certain ideas of his own in mind. I knew though, that his doubts persisted.

Dr. Howard returned from Mannlertown two days

The only later. information that he imparted was that his investigations had proved satisfactorv.

He said nothing more and, assuming that his inspection had disproved his doubts. I forebore mentioning the thing

to him.

It was not until the second cataclysm, a day later, that I learned along with the rest of the world, what his

thoughts were.

The second cataclysm took place on the afternoon of July 1, but, because of the remoteness of its scene, word of it did not reach most of the world until the next day. For the scene of the second event were those bleak Finnish plains that lie east of the Baltic, and particularly one barren

valley that was far from the nearest

telegraph.

News concerning what had happened was scanty enough. The central fact was that upon one of that valley's slopes, something had gouged from the grassy earth a tremendous trench like the one that had been cut through Mannlertown. It was one of the same general size-several miles in length and a quarter-mile in depth and width; but in that remote place it had done almost no damage.

The only damage to property, in fact, had been the destruction of a herder's hut that had been in the path of the thing. The herder said he had been gazing down over the slope in question when the disaster had hap-

pened.

First there came a great flash of light in the air above, the flash of some colossal, glittering body swooping from above to Earth's surface. He could not describe what he claimed to have seen of it in that lightninglike glimpse, and could describe it only as of something huge and glittering, and roughly scooplike in shape.

N the very second that he saw it, it had struck the slope, and then with great speed had rushed forward, along it, half-burying itself in the Earth, emitting a loud, grinding roar. In an instant it had streaked like light along the slope for several miles and then was gone with an upward flash, the

noise gradually ceasing.

This tale received small credence from the outside world. The paper that I read mentioned the story only as an illusion, born of excitement, and went on to point out that while the Mannlertown cataclysm had been repeated the explanation accepted for it had not been disproved. It simply meant that another giant meteor had grazed our globe, and it might well be that the Earth was passing through a swarm of them.

I will own, however, that to me the meteor explanation seemed rather weakened by this so exact repetition of the first catastrophe, and I could not at all see how this recurring catastrophe could be explained so simply,

A T the first news of the thing, I had sought Dr. Howard to learn his own view of it, but he was not to be found at the university. And by the time I had met him the next day, I, along with most of the world, had read the late editions of the newspaper in which he first startled the nations with his astounding explanation of the two cataclysms.

He stated that he had studied closely the scene of the first cataclysm, and had derived therefrom a theory as to its cause which he believed was substantiated by the second

occurrence.

"No one, who has considered carefully the Mannlertown catastrophe," he stated, "can credit for a moment the idea that it was caused by a meteor. Had a great meteor actually grazed the Earth that night, the sky for a thousand miles would have flamed with its passing, even had it down trawls to drag along their beds far below, so someone, something or things, exist on the surface of the atmospheric ocean at the bottom of which we live, and is letting down trawls to drag its bottom, the surface of the sphere we call Earth!

"This idea may seem fantastic to many. We human beings do not think of ourselves as living at the bottom of an ocean; but a little reflection will show that to be the case. The atmosphere is an ocean, fifty to sixty miles in depth, covering all the Earth.

Our knowledge of it indicates that, becoming more and more rarefied, it has a fairly definite surface or limit a few score miles above us, beyond

which lies empty space.

"So there is a great air-ocean, and at its bottom we live. The pressure at its bottom is tremendous, even as the ocean's pressure is tremendous near its bottom. But like the crea-

A SCIENTIFICTION HALL OF FAME STORY APPEARS IN EVERY ISSUE STARTLING STORIES

been able to pass out of Earth's grip after entering it, which is an incredible hypothesis.

"The cataclysm at Mannlertown was not caused by a metor, but by some vast scooplike object that was drawn across several miles of the Earth's surface with immense speed. In that way it gouged out the great trench in the land. The second cataclysm in Finland was obviously caused in the same way, there being no appearance of a meteor in the sky. The huge scoop of which I speak was actually seen in the second case by the Finnish herder whose story has been little credited.

"We must accept, then, the theory that on two different occasions within the last few days a giant scoop of some sort has been lowered from outer space, dragged across the Earth's surface for several miles with incredible speed, and then jerked upward again, taking with it the matter it has cut from the Earth! Just as we men sail over the surface of our waters and let tures that live far down in the seas' depths, we are so habituated to that pressure, and our bodies braced internally against it, that we do not feel it. If we were to be taken into empty space our bodies would explode as would fish taken from the seas' depths. And in the same way, were creatures accustomed to empty space to enter our atmospheric ocean they would undoubtedly be crushed to death by its pressure.

"It is that which, in my opinion, accounts for this trawling from above. It may be that for centuries, while we have pondered on the planets and stars, ships from those planets and stars have been coming and going far above us, filled with creatures who have evolved in space as we have evolved in air and fish have evolved in water. We would know no more, dream no more, of the existence of those space ships than the creatures at the seas' bottoms know of the great liners going and coming fer above them.

"But suppose some of these beings,

possessing space ships, become curious as to what lies at the bottom of this air-ocean of ours? They could not venture down into it. What would they do? Would they not let their ships cruise to and fro on the surface of the air-ocean, and let down great trawls to drag the bottom far below, just as we men trawl an ocean into whose great depths we dare not descend?

BELIEVE that is what is now going on. And make no mistake! These beings, who may be infinitely beyond us in intelligence and science, and who are undoubtedly completely different from us in every respect, care naught for the wreck and ruin they may be causing with their trawls. Any terror they might loose upon us would mean nothing to them. For to them, high above, we at the air-ocean's bottom are no more than the blind, strange creatures that we fish from our own watery seas' depths are to us."

It seems unnecessary to describe the turmoil that was aroused by Dr. Howard's startling statement. It is hard to expose the wilful blindness of a world that now looks back upon that blindness with something like terror.

Dr. Howard's theory became the target of every form and degree of criticism during the ensuing days. His idea was susceptible to ridicule, and the scientists whose meteortheory he had questioned seized the opportunity. The public's indignation dissolved into laughter.

A very conceivable fact was brought forward to demblish the "ridiculous" theory. If space ships were passing to and fro constantly outside our atmosphere, why had they never been glimpsed by astronomers? Dr. Howard replied promptly to this by giving a list of unknown objects sighted by astronomers in space during the last decades, by Sporer and Wartman and Grek and Ferguson and Loomis, and scores upon scores of others, objects seen against the sun or moon or planets, and which had never been identified.

There was no more criticism on

that score, but new ones were raised. Each new critical attack brought forward in those few days met with much the same treatment, and the criticism on the part of Dr. Howard's enemies began to change into bad temper and abuse.

I mentioned this to him on the night of July 5th, showing him an account of the latest attack. From my first reading of his hypothesis it had seemed to me crystal-clear in truth, but conventional scientists had found

its startling presumptions upsetting.
"They wouldn't believe it, some of
them, if they themselves were picked
up by a trawl from above and whirled

around the Earth," I said.

He shook his head thoughtfully. "I

think that they will believe it soon, Ransome," he said. "If these visitations from above continue—"
"You think they will continue?"

"You think they will continue?" I asked. "After all, why should they? If beings out of space actually are trawling they must have learned enough from their two attempts to satisfy them about Earth's surface."

"I don't think so. For all we know, Ransome, they may be searching for minerals or ores or materials unknown to us, hoping to drag them up from the bottom of this air-ocean. Or they may want living things, for purposes of their own. Or it may be mere scientific curiosity. God knows what motives sway them, but let us hope for one thing."

'And that-" "That they do not find whatever they are searching for. For if they do; if they come to look upon Earth as a source of needed materials, it means the end of our civilization. Imagine those gigantic trawls descending in great numbers out of the skies day and night to gouge Earth's surface-imagine perhaps great airsubmarines or hermetically closed ships of some kind venturing down here to surface-or submarine mines, caissons of some strange sort here at the bottom of the atmospheric oceancreatures of dread-"

SHOOK myself clear of the horrors his words suggested. "After all," I reminded him, "this is a rather baseless fear. There haven't been any more cataclysms and it may

well be that-"

Abruptly I halted. Through the open windows of the apartment came the growing clamor of shouting voices. We ran to the window and at the sight of the excited newsboys along the street I think that the same foreboding gripped us both. Three minutes later we were looking together at one of the newspaper extras, reading it in a horror-dazed silence.

Only a few hours before, the terror from above had struck Earth for the third time, and this time with the most terrible results thus far. For the vic-

tims had been Chicago!

The giant thing had been seen more or less clearly by many thousands, despite the swiftness of its action. It was colossal in size, much like a steam-shovel's scoop in shape, glittering strangely, as though composed of an unknown metal. Its top disappeared far above into the night.

The thing had struck the city's southern acres and in a moment, with a roar as of worlds splitting apart, had cut northward across the city and for a mile or more out into the lake, then flashed up into the dusk as swiftly as it had descended. Chicago was in uncontrollable panic, a choso of fear.

When we read that, both Dr. Howard and I were silent for some time, listening to the disturbed hum and roar of excitement that penetrated the room from outside. And before either of us could speak, we were sharply aroused by the coming of a telegram. Dr. Howard read the brief message twice, then handed it to me, without comment.

An hour later saw us in a great army plane flying southward through the

night toward Washington.

It was still night when our plane slanted out of the darkness into the blazing landing-field lights. A powerful car awaited us, and as it sped with reckless speed across the city which was as aroused, excited, and horror-stricken as New York, we could distinguish now and then the great dome of the Capitol, gleaming white in the light of dawn.

In a short time we were inside the Capitol, and were ushered into a small paneled room where a dozen or more men seated around a table awaited us.

I recognized at once the well-known features of the Secretary of War. He greeted my superior and myself warmly; but the strain that he was under showed as clearly in his face, as it did in his associates about the table. At once he plunged toward the point.

"Dr. Howard, some days ago you gave the press a suggested explanation of the Mannlertown and Finland cataclysms which was, despite your scientific eminence, too startling to be accepted by the world or by your fellowscientists. That explanation has now been shown by this catastrophe that his riven Chicago to have been irrefutably true. We must accept, unprecedented as the situation is, the fact that vessels of some sort from outer space are actually trawling the Earth's surface from above its atmosphere, that trawl having been seen at Chicago by thousands, as it was seen in Finland. You alone among scientists have comprehended the nature of this menace. We have called you here to suggest some method of meeting it."

R. HOWARD was silent and thoughtful for a moment, gazing from one to another of the anxious faces at the table. All eyes were upon him as he gravely answered.

him as he gravely answered.

"Since I first comprehended what

lay behind these catastrophes I have sought for some method of halting them, some method of striking back at whatever ship or ships from space are hovering over us. To find such a method I have had recourse to the same analogy that has been made so tertibly clear to us, the analogy between ourselves at the bottom of our air-ocean and the creatures at the bottom of the sea.

"Suppose those creatures far within the seas' depths had some intelligence and science, and suppose they wished to halt the trawling of our ships whose great scoops sweep down now and again upon them. How could they do so? They could not venture up to the ocean's surface. But one thing they could do, and that would be to send up something that would fight for them, make it impossible for the trawling ships to cruise longer on the surface!

"They could, granted science and intelligence enough, construct great mines in vast numbers. These, if attached to air-filled globes, would be swept instantly up to the ocean's surface when released. They would float there indefinitely, and any ships cruising to and fro would sooner or later strike one and be destroyed, unless they were warned by the previous destruction of one. In this way the creatures of the seas' depths could prevent our cruising above and trawling for them.

"And this is the way we must use to fight the beings who now cruise far above us! We must mine the air! We must send up thousands of great mines constructed so that they will float up to the surface of the Earth's atmospheric ocean and remain near that surface where, we know, the ships of these space beings are coming and going. With thousands of mines floating about some of the invaders will inevitably be destroyed by a collision with one of them."

The others were silent for a moment. Then the secretary of war broke out:

"Mine the air!" he repeated incredulously. "But how? How could any mine be constructed to float up in that way, so light as to float on the atmosphere's surface?"

"There we have recourse again to our analogy," Dr. Howard declared. "If a mine attached to a great hollow globe of air were released at the sea's bottom, it would rush up toward the surface and float there. In the same way, a mine attached to a great globe in which there is a complete vacuum would rush up through our air-ocean!

"We can construct those globes of the strongest and lightest material known—steelite. As you all know, steelite is the recently devised metal that has immensely greater strength than steel but the merest fraction of its weight. A forty-foot globe of steelite can be made, with a charge of explosives of terrific power attached to it that will detonate when the globe is touched. This done, all air is to be exhausted from the hollow globe by great pumps, until the vacuum inside it is almost complete. The enormous strength of the steelite shell prevents its being crushed by the atmosphere's pressure as an ordinary steel shell would be.

"Released, the vacuum globe with its deadly charge will shoot up through the atmosphere with terrific speed. Its lightness for its size will be such that it will not halt until it floats on the very surface of our atmosphere. We will make these globes in countless thousands, each with its charge, and release them. Each globe will have a device that will repel any other, so that they do not detonate each other.

"We will sow the surface of our atmosphere with these deady ain-mines!
Sooner or later the ship or ships cruising to and for on our atmosphere's surface will strike one and will be destroyed by its detonating charge. In
this way, and only in this way, can we
fight back against the beings from
space who are inflicting this horror
upon us! All the industries of the
world must concentrate upon one effort
—to make air-mines!"

MAKE air-mines! It became the watchword of all Earth's races within a few hours of that momentous meeting. For the President and the heads of the Earth's other government's sent statements in which Dr. Howard's suggested method of combatting the danger was stressed as the world's one chance. Scientists agreed, as one man, that Dr. Howard's strategy was the one possible way of fighting these grim visitors from space who were hovering in their enigmatic vessels at the surface of the atmosphere.

Within a half day after the meeting, Dr. Howard and I, aided by several masters of aeronautical, chemical, and physical sciences, had drawn up the plans of the air-mines. Each was to be a hollow steelite globe forty-two feet in outside diameter. This would give the globes a lifting power of about five thousand pounds. Attached in a special chamber at the side of each was the charge, a load of the most modern explosives, small in bulk but terrific in power, while striking-pins on the globe's sides made it inevitable that the charge be exploded whenever the globe was struck.

By that night hundreds of men were busy in Washington turning out copies of the simple plans of the airmine, and scores of planes were flying throughout the world with copies for all nations. On the 7th the manufacture of the great engines had already been begun in a hundred cities.

But on the night of the 7th the terror struck again. This time it was with small loss of life, but the psychological effects were far greater. It was upon upper Malaysia that the giant, glittering trawl descended, flashing down to rip a great trench of destruction through the jungle and along the edge of a native village, then flashing up again, leaving utter panic behind it.

As best they could, the governments of Earth sought to dissipate the panic. Already the great steelite globes were rolling out of the big factories, and were being quickly fitted with the charge of explosives.

It was early on the morning of the 12th that the first air-mine was finished and released. Dr. Howard and I superintended the process, which took place outside one of the great Pittsburgh steelite works that was turning out the globes. Anchored securely to the ground, the globe was slowly exhausted of its air by the giant air-pump that had been equipped

for the task.

The pump was disconnected. Then the globe was removed to a large open field nearby and re-anchored. could see clearly that the mighty globe, of incredible lightness, was straining upward with such force against the anchoring chains that held it that it seemed they must part. Dr. Howard reached forth and turned the lever that held the great globe anchored. There was a whizzing sound, a puff of air in our faces, and the great air-mine had vanished, rushing upward at such tremendous speed that it had seemed to disappear before our eyes.

We all gazed up after it, as though to follow its course upward until it floated at last on the surface of Earth's atmosphere. I think that the same thought held us all. This airmine, this single globe we had released-it seemed such a puny weapon to use against beings who from mighty ships had let down the colossal trawl upon us. Was there actually any hope for us in this method?

By the 15th, scores of the globes were being released each hour, here and there over the world, and their number was rapidly increasing. Dr. Howard was sleeping but two hours out of twenty-four, it seemed, remaining night and day at the Washington office that had become the center of the world's activities. He estimated that within a week the air-mines would be pouring forth at the rate of a thousand a day.

"The great danger," he said, "is that the next attack might hit one of the great cities so hard that the inevitable panic will cause a cessation of work

on the air-mines,"

"But how long is the work to go on in any case?" I asked. "There must be thousands of globes floating already upon the atmosphere's surface.

"There need to be tens of thousands, hundreds of thousands," he said solemnly. "They must be sent forth until these terrible trawlings from above have entirely ceased."

SHOOK my head, for I could see that already many, tired of the ceaseless work, were crying out that the scheme was a crazy one. Others had begun to say that whatever space visitors had been above had already departed. But these statements were swiftly silenced on the next morning, that of the 16th, by the fifth catastrophe.

This fifth blow took place at one of New York's residential suburbs, Scarsdale, and while it took a toll of life exceeded only by that of the Chicago horror, it was different from the others in one odd respect. The great trawl seemed to descend and gouge along the Earth with somewhat smaller speed than in the other instances, and was seen very plainly and even escaped from in time by some

people in the vicinity.

It was described as being very like the familiar steam-shovel scoop in shape, but of a glittering metal that all agreed was not native to the Earth. The top of it, what supported it, ran up into the mists of the morning sky.

At Scarsdale perhaps twelve hundred perished in the sweep of the giant scoop, which seemed to make a smaller gash than usual. A few who had heard the trawl crashing toward them had managed to flee from its

path in time to escape it.

This fifth catastrophe marked the beginning of the terror's last period. Until then Earth's peoples had hoped against hope that in some unexplained way the whole business was the result of natural forces, but now they could no longer doubt that far overhead were hovering vessels or vehicles dragging their trawls here and there over the Earth's surface for their own unfathomable purposes.

It was the sword of Damocles, sus-

pended over a helpless world!

The days after the Scarsdale terror saw the world's activities at their most intense pitch. Dr. Howard and I were occupied in the direction of the manufacture and distribution of the airmines. For he was not having them released at the factories where they were assembled, but at various points over the Earth, so that they would cover more uniformly the surface of the atmosphere ocean.

Day after day we sent them out. I know that to me those days were part of a dream of nightmare activity and tension. Again the world was waiting in dread for the coming of the great trawl. It did not come again, for reasons which we shall never guess, until the 19th. That interval of three days between trawlings was the longest that had yet elapsed. We owe much to it. Perhaps our world.

For in those days the air-mines were speeding upward in fast-increasing numbers. By the 19th they were ascending at the rate of more than a thousand a day. All of Earth's peoples, in the industrial regions at least, seemed toiling upon the one task of making the great globes. The world's hopes were raised. We were winning. it seemed, by sowing the atmosphere's surface thick with air-mines that sooner or later must demolish all or part of the space invaders. We were exultant, even. And then-

Shortly after dark on the 19th a trawl flashed down to gouge most of the town of Martiana, in southern Norway, from the face of the Earth.

On the morning of the 20th another trawl, or the same one, descended and gouged the bed of the Mediterranean just off Capri and in full sight of its shore.

A little before noon on the 21st a trawl was glimpsed plowing a vast wound in the Sudan desert near a British outpost. And three hours later a trawl cut a terrific trail of annihilation squarely across the city of Algiers.

ARTH and the races of the world rocked beneath those fearful cataclysms, striking in such swift succession. With them the activities upon which the races of man had been so fearfully bent-the manufacture of air-mines-began to dwindle. By the 20th the number of air-mines released had fallen off a little, and after the catastrophes of that and the next day it was even smaller. Dr. Howard's reports showed that on the 22nd but four hundred air-mines had been released in comparison with the twelve hundred released three days before.

Mankind was giving up the battle

in despair!

Panic was breaking loose over the Earth, a panic and dread that nothing could restrain. Toiling thousands quit their work upon the manufacture of air-mines in hopeless despair. Mobs began to appear in the streets of London, New York, Shanghai, and Sydney, and rioting became general. The world was going mad with fear!

Dr. Howard strove above all else to keep the manufacture of the air-mines going. And yet it seemed all so futile. It was not like striking back at a visible enemy, this frantic manufacture and release of the mines. Men would have been happier by far, I think, had they faced more terrible enemies in the plain light of day. I know that in those last days of an apparently disintegrating world I would have been easier in mind.

"It's a race against time now, Ransome," said Dr. Howard, "We cannot continue the production of airmines much longer-and civilization

is crashing now!'

"But is there no other way?" I cried. "My God, Howard, these air-mines are useless-we've sent up tens of thousands and they can be no more than a sprinkling in the vast extent of the atmosphere's surface. To try some other way-"

"There is no other!" he exclaimed. "Ransome, we must fight it out to the end! The air-mines-they're our one

chance!"

Somehow Dr. Howard's indomitable will held together in those last days the thread of organization between factories and their sources of supply, despite the wide-spread outbreaks

that were going on.

But on the 25th it became apparent to all that our last efforts were flickering out. Then late on that day came news of the tenth trawl. It had descended a hundred miles south of Rio de Janeiro to crash across a plantation with the loss of a score of lives. And hardly had that dread news spread around the Earth than came word that the trawl had again flashed down a few hours later to gouge a terrific scar from the side of one of the giant peaks of the Peruvian Andes.

The end! With the spreading of those two reports it seemed so. For they so deepened the blind and unreasoning fear that had gripped mankind that the production of air-mines all but ceased on that day, only a few dozen continuing to be assembled and Panic-mad mobs caused released. chaos in the greater cities. Every organization of civilization seemed breaking down, and troops called to suppress wild outbreaks fought pitched battles with the mobs.

On the night of the 26th came the crisis for mankind. For it was known that all man's efforts to halt the menace from above had failed, that mankind lay defenseless beneath the grim and terrible invaders from beyond, who might at any time loose even greater horrors upon us. Man had fought an enemy he had never seen and had lost! He had fought an enemy who apparently cared no more for the wrecking of mankind far beneath than we do for the insects beneath our feet!

HROUGH the hours of that dread night I sat with Dr. Howard and with the last of our remaining organization in the Washington office. Outside, to the east, the sky was red with the glow of flames, where a mob has set fire to looted buildings. From afar we heard the crackle of shots, the rumble of hurrying tanks, and the wild uproar of cries as troops sought to bring order out of the chaos of a dissolving civilization. We were silent, in a silence that made each minute age-long. And it was there, almost toward morning, that the last messenger of mankind's hope found us. He was a disheveled young radio

operator and it was some moments before we comprehended what he was babbling frantically forth to us. When we did, twenty minutes saw us in the air and speeding southward through

the night with an army aviator. Over the fear-mad, riot-blazing city

and through the night out over other cities we sped, at the plane's utmost velocity, Dr. Howard peering ahead with face set, I gripping the cockpit's rim with nervous, trembling fingers. We were still speechless as our plane raced southward. It was not until dawn was streaking the sky eastward that the plane bumped down into a field a few miles from a little Georgia village.

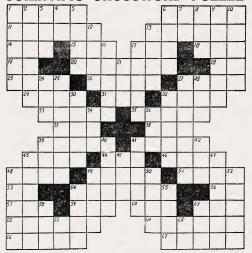
We found men awaiting us, in uniform and civilian clothes, and all were half-hopeful, half-awed. Swiftly they

told us what had happened.

Shortly after midnight citizens near the village had heard a faint, almost inaudible but clear sound of detonation, coming as though from far above. Almost in the next in-

(Continued on page 122)

SCIENTIFIC CROSSWORD PUZZLE



HORIZONTAL

- 1—Backbone of a vertebrated animal
 6—Instrument used for sending out and re11—Giand found behind the third ventricle
 12—of the brain graph herbaceous tropical plant
 14—Suffix used in naming nexymes
 15—Biony rod attached to the spine
 17—Male offspring

- 17- Male offenring
 18- Angle observer (abbr.)
 20- Shoulder-blade
 20- S
- body 33. Winged—in the botanical sense 35. Descent in a river less abrupt than a waterfall
- waterian 37—Subject of each conscious act or state 28—Natural depression in the earth contain-
- ing water or mud
 39—Positive pole of an electric bedy
 41—Stuffs with bacon or pork

- One of two young produced at birth
 Tracing-paper made from a vegetable substance Small dislocation of strata
 - Soft hydrous magnesium silicate Seaport in Chile scene of a severe earthquake
- 51—Heroic narrative poem 53—Railroad (abbr.) 54—Body situated at either side of the me-dulla obiongata
- 56—A major Baseball League (abbr.) 57—Doctrine 59—Suffix med
- -Suffix used to denote salts of an acid whose name ends in "ous" -Society of International Opticians (abbr.)
- 61-Society of International Section 61-In medical prescriptions, a term denoting an equal quantity of the several in
 - ing an equal quantity of the several in-gredients —An inhabited place in Spanish America.—South American cameloid runninants.—To test the value and purity of metals.—Joints midway between the hip-joint and the ankle

VERTICAL

—Continuous bodiless expansion Class of vertebrates —Same as 31 across

-Gaseous element occurring in the air to the extent of 1 or 2 parts per 100,000 (abbr.)

Organs of hearing Genus of amphiblan vertebrates Indefinite article Measurement of time

Measurement of time
White, amorphous, soluble compound
(Caffago, Isometic with starch
(Caffago, Isometic with starch
Simall parssite insects which suck the
blood of mammals
lightning
Pressure of 75 centimeters of mercury
Above in position

A play on words
Meadow
Derived from selenium
Type of fibers extending across the cell
between the two centrosomes in mitosis between the two centrosomes in incoses—Young goat

-Haif-man, half-fish god of the Phillstines

-Vitreous, crystalline, easily cleavable,
lustrous minerals

-Weight of about 28 pounds, used for wool

-American Philological Association

(abbr.) (abor.)
Pointed steel instrument for making small holes
Weird

41—Editor of Lamb's works
42—Imbibe in small quantities

Civilian (abbr.)

Leaflets of a pinnate leaf
 Part of the stomach of a ruminant
 Lowest female voice
 Accessory covering of a seed

59—Accessory covering of a seed 52—Group of plants or animals standing above an order

55—Yellow portion of an egg 58—Middle (combining form) 61—Association of Mechanical Engineers

-Silver-white to yellow, malleable, non-volatile element of the alkaline earth group (abbr.)

The Solution is on Page 127-If You MUST look!

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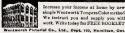
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DO YOU DUNK?

Sh-h-h! See page opposite Table of Contents

The Space Visitors

(Continued from page 119) stant had come another detonating sound, as faint as the first, and then silence. But a few instants later, coming from the west of the village, they heard in quick succession two terrific prolonged crashings as of things fall-

ing from an immense height.

They had thought the trawl was descending on them, at first, and had fled from it for some distance. But after moments of hesitation they had made their way to the scene of the crashes, and what they found had made them get word quickly to the soldiers in a nearby town, whose first act had been to radio Dr. Howard.

The captain, who was the commanding officer, told his story to Dr.

Howard:

"We went across the grassy fields. Before us, as we rose over a slope, there loomed a great column of steam going up into the sparkling light of day. We went very near to it before we halted. So near that we could see even through its veiling mists great shattered masses of glittering metal, buried almost completely in the soft earth, from which they had smashed a huge crater in striking.

"We stared at it for a time, not daring to go nearer, for the heat that had caused the steam still radiated intensely from the shattered metal. Not far across the fields was a thinner

steam-column.'

They told us that the colossal metal mass that caused it was buried even deeper in the earth, so deep that hardly any part of it could be distinguished.

Dr. Howard and I stared at the two giant geysers of white vapor. It was victory, we knew. Victory, whether partial or complete, over the space visitors who had held Earth beneath such a spell of terror. Far above, cruising on the surface of Earth's atmosphere, two of their mighty vessels had struck a field of the air-mines we had released, had crashed in shattering annihilation through the dark

Victory! Yet it was not as I had dreamed the victory would be. I had thought of a wild climax after a terrific battle. It was so strange, so different. Just Dr. Howard and I and the khaki-clad soldiers and the wondering villagers, standing there in the soft light of the Georgia dawn, in the quiet fields with only the sound of birds about us, gazing so quietly toward those twin steam-columns.

Then realization of what it meant struck through to my terror-numbed heart. Victory, whether partial or complete—it meant the dissolution of the spell of horror that had gripped Earth, the gathering of Earth's forces to carry on the struggle, if need be, against foes whom we now knew were not invincible. Victory, and in a few moments the word of it would be flashing out around the Earth.

LYEN now that dread has not disappeared, wholly. For never again will Earth seem to us the isolated globe that it once was, even though the ships have not returned. We know now that there are ships that come and go out there in the great void, ships from some near or far planet. They came once to visit the Earth, to trawl in its air-ocean with their giant scoops, and they may come again.

Of their nature we know no more than before. Dr. Howard and the greatest scientists of the world have examined with the utmost minuteness the two great metal wrecks in Georgia, but have been able to learn comparatively little from them, so fused into molten metal were they by their plunge down through the atmosphere. The glittering metal of which they were constructed has proved quite strange and impossible to produce on Earth. There have been found halfmelted instruments or mechanisms in small number, whose purpose we cannot as yet understand.

What of the beings who manned those mighty ships? That is perhaps the greatest question of all, and the most insoluble. A thin coat of strange glistening slime was found on a few parts of the two wrecks not melted. Whether that is all that remains of the

(Concluded on page 124)

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can insure that.

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(Concluded from page 123)

space-visitors of those ships, whether their hodies were solid or liquid or even gaseous or merely force emanations, we can offer only theories

The world has recovered fully from those days of horror, and in recovering has given to Dr. Howard the honors due him. He is beyond all question the greatest figure in the world today

He has used the tremendous influence that is his alone to urge preparation upon the world, preparation for emergencies of a similar nature that

may again arise.

"Out of the unknown came these dread space visitors to Earth." he warns in an article, "and who knows but that somewhere in the unknown even today other grim vessels are winging through the void toward the Earth? It may even be that our present peace is only a respite and that we have repelled the first attack of these unknown beings only to have them coming again upon us in infinitely greater numbers. Sometime in the future, I think, man will have advanced in knowledge to the point where he too will venture into the void, will be able to meet his attackers face to face. But until then the airmines are our only protection.

"I want to see vast fields of them floating on the surface of Earth's atmosphere, fields through which no invading space ships from the void outside can make their way. But Providence may not again aid our efforts. Man is probably but one being among the Universe's countless races of living creatures, and he can only hold his planet against others by his own wisdom and strength. Never again can he feel the false security that was ours before these space visitors came.

This warning, surely, we are heeding; yet even with the loss of that old false security, we do not face the future with fear. Whatever beings of power the Universe holds, we realize now that we too are beings of power. We have fought for our planet against the space visitors and have held it. As a race we have come of age.

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THE ETHER VIBRATES

(Continued from page 109) With the writers promised us for the fu-ture and artists Paul and Wesso doing their stuff, we should hear a lot more about S. S. in the future. Good luck, stay a long time Street, London, W. I., England. WOULD DUNKING SOLVE IT?

By MARTIN F. BASS

by MARINI F. BASS
Three cheers for "Glants from Blentity" in
Three cheers for "Glants from Blentity" in
darned clever idea behind it. It has also set
me thinking along a semi-improves tangent
solve the problems of the future brings to a
head the question. "Just what would they do
here's my guess. These shrewd old boys
would get everyone to Join the National
ful, amiable, good-natured feelings between
ful, amiable, good-natured feelings between
man and man by encouraging the act of

dunkins.

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By L. J. STANTON

By L. J. STANTON

Your idea of printing the classics of past
Your idea of printing the classics of past
retirement. Having been an ardent reader
of science faction for fifteen years and a
suggest a story for revival which is surely
the one with most topical integrate to prompt.
Final War, which appeared in Wonder Storfail me. Here was one of the most gripping
plees both with in the future the flowest
flower than the first the first of the force
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plees and the first of the first
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flower

"our" media.

I see by some of the letters in the ETHER VIBRATES that there now scems to be a demand on the part of some readers for something funny now and then to leaven the mass of battle, murder and sudded disintegration. You may expect a yarn from me soon along these lines, also a story in a seri-

graties. You may expect a yarn from me one with many put me desse lines, also a tittory in a serial root with the control of t

(Continued on page 126)

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What's All the Excitement About

DUNKING?

See Page Opposite Table of Contents

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THRILLING WONDER STORIES

15c At All Stands

(Continued from page 125)

makes its republication impossible. Most of the stories you mention are prohibitive be-cause of their length. Any special shorts you'd care to see again?—Ed.)

"MARTIAN ODYSSEY" IN NEXT

By JAMES D. TILLMAN, JR.

By JAMES D. TILLMAN, JR.

SYANTLING SYOTHES, and 1859: One of the best I have ever read.

Weithbaum's "Black Flame" was superb. The plot was reliable to the property of the best I have ever read, and the property of the two best novels in have ever read, and the two best novels in have ever read, and like is good, and the first one was well elseen. But why didn't you choose. "A twice of the control of the co

worked lately?
Department are good. The review of the Department become they that has been needed for a long time. Let's have some more spice in the reader's department. Rothman, Darrow, Lowndes, Ponn—where are they?
Nominations for Hall of Fame? First, like. You had been some for the property of the

licts of Ganymede." That would snow some of these ginks how a humorous story should be written. Also, the other Campbell's "In-finite Brain" would be good. Yours for more science in science fiction.—Madison College,

("A Martian Odyssey," Stanley G. Wein-baum's first story—the scientale that sky-rocketed him to overnight fame—will appear in the next issue of STARTLING STORIES!-

REALISTIC ROBOTS

By LEONARD RAMONETTE Manly Wade Wellman's "Giants From Eter-

Manly Wade wellman's Giants From Lier-nity" did not raise the standard set by the previous issues of STARTLING STORIES, but it certainly did not lower it. It is by far Wellman's best effort to date, excluding

far Weilman's best effort to date, excluding and the property of the property

BEST FUN, FICTION AND FOTOS №

it ended Just as it was getting interesting. However, short as it was, it was a fine story. However, short as it was, it was a fine story. The his story Thoto A.1. Instead of presenting a robot with a one-track mind, belt on ryce, like some metal Frankenstein, he departs a one-track mind that regnited all metal beings that dared think or act like humans one-track mind that regnited all metal beings that dared think or act like humans with the start of the

WILLIAMSON COMING! By MARTIN ALGER

By MARIIN ALGER
STARTLING STORIES does it again! "The
Prisoner of Marr' was the third swell novel
years in as many issue; that's some record."
The Black Flame" is the best of all. I just
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these two stories combine to make one of
tune to read. While each is a complete story
in itself they are even better together,
they are the story of the story of the story
in itself they are even better together.
By all means keep, Wesse and Finlay.—
By all means keep the story of the story of

CLEVELAND S-F CLUB BY ALLEN R. BAKER

BY ALLEN R. BAKER

"Glants From Sternity," without question.

"Glants From Sternity," without question works of Weinbaum. Hamilton, and A. Mer
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Answer to Puzzle (SEE PAGE 120)





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fect world! More short stories in the coming Novem-ber issue of STARTLING STORIES. And, as a special treat, the HALL OF FAME selection will be A MARTIAN ODYSSEY, the first story ever written by the late Stanley G. Weinbaum. This story, a novelet, will be published in special supplement form! A new collection of THRILLS IN SCIENCE in the next issue, a new SCIENTIFIC CROSSWORD PUZZLE. Many other CROSSWORD POZZLE. Many other features including SCIENCE QUESTION BOX, and the Life Story of Heinrich Hertz, master physicist, in THEY CHANGED THE WORLD. A great number.

—THE EDITOR

BEST FUN, FICTION AND FOTOS IN

MEET THE AUTHOR

SELE-DORTRAIT

By Robert Moore Williams

Author of "The Bridge to Earth," this Month's Book-Length Novel

'M from Missouri! You've heard of the Ozark Mountains? Well, I was born down among them, June 19, 1907, at Farmington, Mo.
Why am I writing tall yarns? The urge to

write gripped me at an early age, but, for obvious reasons, I carefully concealed it from friend and editor, hoping it would vanish like the characters in this novel. A little less than two years ago, I found it was annoying me too much for comfort, so I quit my job, gleefully thum bed my

nose at my boss, and took to the tall timber, determined to come home with my typewriter, or upon it. Before I e v e n had time to catch my breath, I found three stories.

other important



Robert Moore Williams

facts about myself. And, after taking time out to think the matter over, I can see no reason for restricting that statement to the present moment. I never could remember anything important about my-self. And that, of course, leads to the egodeflating thought that there are no important facts about me. If there were, I would certainly remember them.

Having dredged this public confession out of my soul, I feel much let down, and I am, just now, a living refutation of the old adage that confession is good for the soul.

It was my purpose, in inditing this little memoir to tell you something about myself, whether you liked it or not. I find this benevolent purpose has been hopelessly defeated. Shaken in body and soul, I admit this fatal fact: about myself there is practically nothing much worth telling. And this admission is not becoming modesty, either. It is literally the aw-ful truth. Let us, therefore, hastily pass on to The Bridge to Earth.

If you read the story before you read this sketch, there is, of course, little I can tell you about the yarn. If you read this sketch first, there is little I want to tell you in advance. Consequently I'm going to let the story do its own talking. I can say this much: I hope you enjoy it.

The Bridge to Earth is my first science-fiction novel.



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